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VICTORIA MUSEUM MELBOURNE

The Journal of the Department of Agriculture of Victoria, Australia.

September, 1923.

PRINCIPAL CONTENTS

Standard Herd Test

Annual Report

List of Certificated Cows

for 1922-3 Season

Winter Egg-Laying Test

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OF

THE DEPARTMENT OF AGRICULTURE,

VICTORIA, AUSTRALIA.

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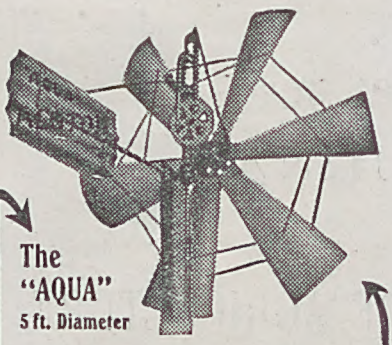

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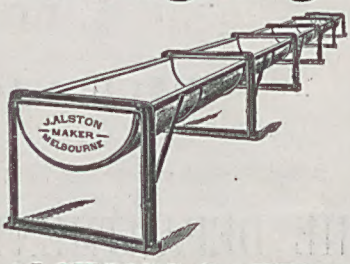

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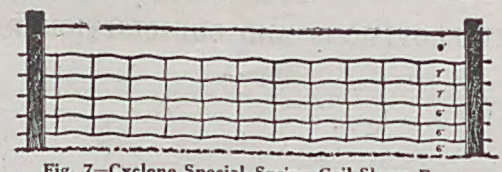

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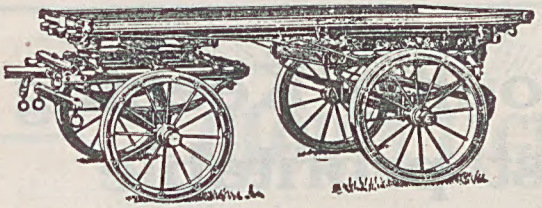

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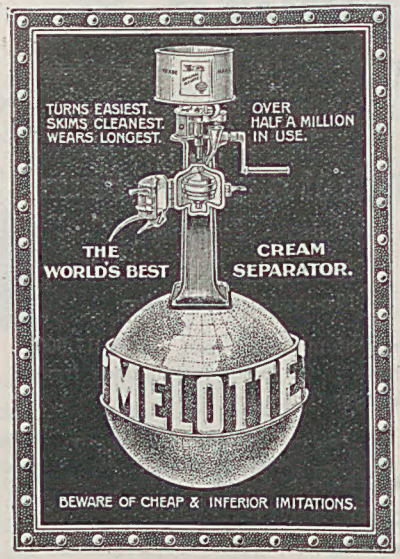

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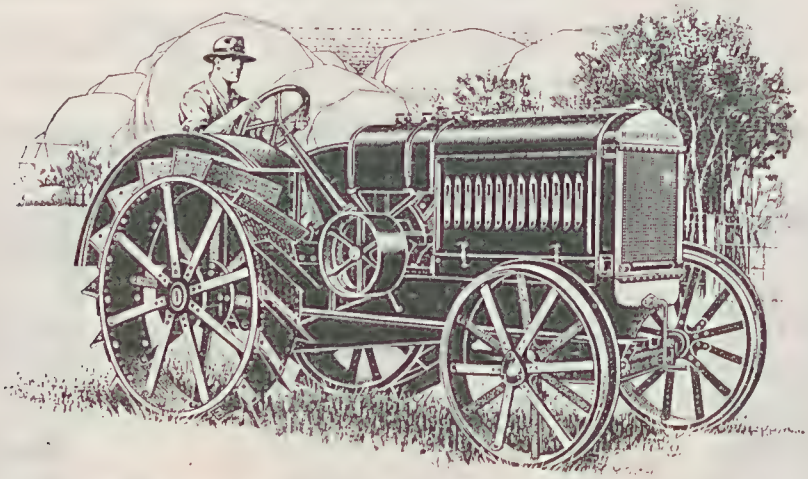

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Vol. XXI. **September, 1923.** **Part 9.**

THE STANDARD HERD TEST—1922-23.

Conducted by the Department of Agriculture.

ELEVENTH ANNUAL REPORT.

By J. M. Kerr, Herd Registrar.

Culling as Necessary as Testing.

If this test has proved one thing more than another, it is the disparity that exists in the producing capacities of cows enjoying otherwise equally favorable conditions. Equal feeding and equal handling do not atone in the inferior animal for her lack of inherent capacity to produce. Another fact the test shows, over and above what it was designed to demonstrate, is the necessity of its natural adjunct—culling—if the full benefit possible to owners from testing is ever to materialize to them. By culling is not meant merely reducing the herd, though this alone might improve the yields of many of the hungry ones. What is meant is rational culling, unhampered by superstition and convention fad—a system which works always towards the one goal of higher production per cow. This is what helps the owner; this is what repays the State.

Use or Beauty—Which First ?

A fine disdain of inferior producers, irrespective of their looks, has characterized every winner of the herd prize since its inception, and this year's winner is no exception to this rule. There is a place for the beautiful, of course, but utility must be allowed precedence over it in such a commercial concern as a dairy herd. There is but little more argument for beauty in a cow that there is for it in any ordinary manufacturing machine. It is welcome as long as it is attached to

efficiency, but it is no substitute for efficiency. If a struggling dairyman, with interest to meet and storekeeper to pay, must mix his aesthetic taste up with his means of livelihood, he had far better feed his cows, and thus escape the most common ugliness of the general dairy farm—emaciated animals.

There is not much difference between the man who insists on the useful being beautiful and he who would ever make the essentially beautiful useful. The function of the dairy cow is utilitarian. If beauty can be retained in the herd without cost, well and good; but the ordinary commercial dairyman, and especially the beginner, working with grade cows, would be well advised to leave the pursuit of such a non-essential to those whom it pays.

This advice is meant especially for the struggling and not too-financial young dairymen who are endeavouring all over Victoria to make a decent living from inferior cows—cows that are perhaps much prettier in looks, if they were only well fed, than many of the best cows in this herd test, but which do not enclose in their prettier skins the same invisible little nervous arrangement which turns fodder into milk instead of meat.

Once a man is on his financial feet it is a different matter. He cannot be expected then to place the same importance on the essentially useful, although from a State point of view it would be better if every farmer as he becomes independent would use his available capital to increase the earning capacity of the farm till the maximum is reached. Some do this; some build a comfortable, and, may be, a flash home; some buy a motor-car, or racehorses, or polo ponies; some make a grand tour; some keep a deer park, and some keep a dear paddock by limiting it to the grazing of only beautiful cows which have never been vulgarized by a tester.

It is, however, believed that what dairy farmers in this State would most welcome, and what the many worthy among them most need at present, is a means of getting at least the same returns with fewer hours of labour; and this is just what sane culling—*i.e.*, based on testing—means. This practice is on the most certain and direct route to butter-fat, which, sordid and all as the word may sound, is the fairy wand capable of banishing all the dairy farmer's material troubles and most of the State's, too, if the majority of the people could only be persuaded to think so.

This may not be the advice the dairyman is accustomed to receive on this vital question of his financial welfare from breed fanciers, the members of which class, as distinct from the tested-cow breeders, are too often regarded as counsellors of the industry? Instead of being directed straight to butter-fat, so real that it can be touched and handled, he is, in its absence, too often advised to accept something in the cow's outline which he is told is the same thing. The fanciers of the past succeeded in getting their really beautiful ideal accepted in show competitions as the orthodox form of a dairy cow—whether because of its delight to the eye or because they believed it did really indicate butter-fat, it is hard to say. There must, of course, be some standard for a show prize, and as that set is astray no more often than any other, it serves; but dairymen should learn that it is in no way essential to production, and any extra price paid because of it will not necessarily be returned in the milk pail. Even now, when the Babcock tester has discredited

body symmetry or type as the guide to butter-fat—there are still those who would re-erect the fallen idol. To vary the well-known stanza—

> So many points, so many breeds,
> So many claims of this and that,
> When just the yield of milk and fat
> Is all the business needs.

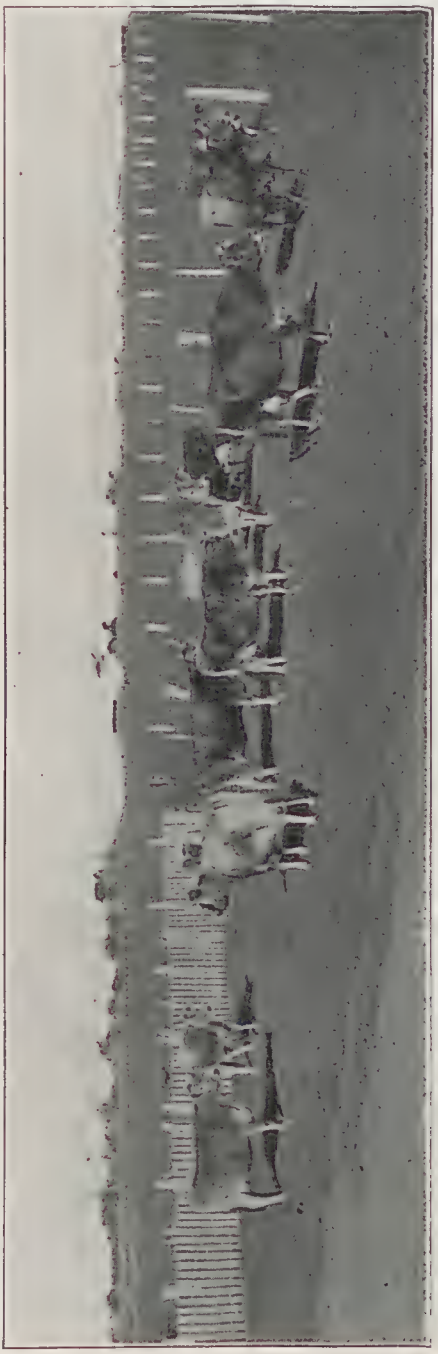
That is just it. What a dairyman needs, and what he desires, are not always the same. And it has usually been possible to flatter him that his preference for the most typey animal is right, and that a good judge needs nothing more than his eye. And the eye has it once again over the Babcock tester; but the purchaser more often than not rues the day he allowed a bit of fancy type to lure him from the much more needed butter-fat just because the latter happened to be in a plainer body.

By the way that some men become obsessed by breed type one would imagine that butter-fat from the fashionably shaped cow would bring at least sixpence more a pound than that from her plainer sister. It would need to often, but, alas, it never does. Quantity always swells the cream cheque, but the looks of the cow it came from never do. This is not decrying beauty in its place, and it is certainly not claiming that gracefulness of conformation inhibits production.

A dairy cow's uselessness is never because of her beauty; but there are many cows that are useless in spite of it. Beauty itself is invariably as harmless as it is pleasing; it is only the intensity of love for it which is dangerous. And so it is with beauty of type in our dairy animals. Who, that has dealt with a herd of milking cows, has not been tempted to favour the pretty ones? The man who should find it easiest to succeed at dairy farming is he who possesses a natural liking for the animals. Here this very qualification may really tend to his undoing. We invariably find a herd-master, who is not to be guided by the scales and tester, pinning his faith to certain animals because of their superior appearance. Until disillusioned by the test, it is quite easy to persuade oneself that type and production go hand in hand.

Time was when one had only to have a reputation for breeding beautiful dairy-type, to feel smugly conscious of the highest honour in the profession. Those days are about gone, and regret it as we may, commercial dairying practice now demands that beauty of type only, even though it include good teats and udder, be no longer accepted as signifying the most suitable animal for the dairy farmer's purpose.

Commercialism is working into all our sport, and now it is getting into dairy farming. To abandon beauty as an essential attribute of a dairy cow may seem getting away from the ideal, but really, considering the penalty which slovenliness of method is exacting from the industry to-day, the only way to make dairying more idealistic is to make it more profitable. Practical idealism which gives hard workers a well-earned measure of ease is preferable to that which requires all one's ready cash to sustain it. We can return to the latter ideal when trade ceases to be competitive. Until that happy time, no dairy farmer who needs profits from his occupation can afford to allow his predilection for



The Winning Herd.

Owner—Mr. T. Harvey, "Jerseyholm," Boisdale.

7 Mature Cows averaged 467 lbs. butter fat.
1 Second-calf Cow gave 524¼ lbs. butter fat.
3 Heifers averaged 354 lbs. butter fat.

type to divert him for a moment from butter-fat—the commercial essential of a purely commercial calling.

It may be a real disappointment, no doubt, to a young dairyman, progressive enough to adopt testing, to find that the most ornamental animals are so often the ones which it pays least to keep. He will, doubtless, be told that he cannot afford to part with type, because, if he gets away from type, production will suffer; this will naturally make him think that the two should go hand in hand. Then he will be advised, probably by the same people, not to breed for production only, because by doing so he will inevitably lose type, and he will assume that the two qualities avoid one another, and that to achieve heavy production he must become resigned to plain animals.

He will probably have difficulty in reconciling these claims, which, if they have any meaning at all, are that if we breed for production alone, the very act loses it for us, unless we tack on type; which any one possessed of but an elementary knowledge of the rules of breeding must regard as an obvious absurdity, amounting to excessive glorification of a relatively useless characteristic—appearance.

The fact of the matter is that an animal suitable because of type and one suitable because of utility, require but one characteristic in common—a decent udder—which characteristic may also exist in an animal deficient in both form and producing function.

There is no disputing the fact that the two are quite independent characteristics which may occur co-incidentally or apart. Except that, to be a satisfactory producer, a cow must have conveniently-shaped teats and udder, we need not in breeding for production necessarily worry about type at all, so long as the parents are of high-producing strain, by fact and not by mere opinion. If a breeder gets away from production, it is because the male and female germ-cells, which united in the animal's begetting, were not possessed of the principle. Plainess had no more to do with it than prettiness. Likewise, if we lose type (not an awful catastrophe, surely, provided we retain production) it is because the cells of the quality were not sufficiently represented in the mating. The best way to insure either is to select the one which is wanted most, and dairy farmers themselves have to choose which is the more pressing.

This might prompt the question, "Why should both not be bred for in the one animal?" There is no reason whatever, except that few can honestly afford it. A breeder should understand the task he is setting himself in doubling the major objectives. There are far more pure-breds plain than otherwise, but which, nevertheless, have enough breed type to enable us to distinguish the breed. Getting this inferior type is the easiest thing in the breeding world. Even getting it along with the capacity to produce well is also comparatively easy, provided production is always safeguarded in the selecting of both sire and dam.

Production, being a necessity always, cannot profitably be omitted, however difficult its attainment might be. In endeavouring to reproduce perfection of type along with it, we are aiming at an additional attribute, which is not a unit characteristic in itself, but is a composite thing made up of perhaps twenty or more unit characteristics, all independent of one another. Even one of these failing to recur upsets

the whole project. The result is as might be expected, one perfect animal in thousands, and this one not possessing all its parts in equally pure degree. In including one, another escapes, much like the old game of "Pigs in clover," and of little more public utility. It thus might well require the breeding of hundreds of animals to make one show-ring champion. What sort of chase is this towards which to urge ordinary dairy farmers, the justification for whose industry is only the amount of utilitarian dairy produce they can succeed in winning for the nation? If the same valuable product could be produced more cheaply without a cow at all, we would, from a national point of view, suffer no economic loss whatever.

It will be found before long that the only cows that have moved away from production are those whose breeder gets away from the tester. If culling, therefore, is to result in maximum butter-fat

Mr. T. Mesley's "Ragtime of Warenda."

(Born 30.8.18.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1920–21	6,365	6·71	427·24
1921–22	6,811	7·08	482·14
1922–23	9,186	6·70	615·51

returns it must be conducted on this principle, that beauty of conformation has nothing to do with the animal's fat production, and one has to decide for one's self how far it is advisable to forgo butter-fat or (the same thing) money, for the less useful pleasure of having one's herd-animals admired as a picture in the show ring or by visitors to one's farm.

Where butter-fat is the first consideration, the cow herself, as the mere instrument, must be made subjective to the product. Some will contend that this practice would result in their not getting sale for their stock. Type in the present state of dairying education

certainly does enable a man to sell otherwise inferior animals; it will command a price for a "dud" producer that could never be procured if she were plain. And that is why animals recommended on their appearance should be regarded with more suspicion than are those whose owner is desirous of having their record known. Even plain bulls will command a price if their deficency of type is compensated for by good production-records behind them.

But who is anxious to sell high-producing females? If a breeder breeds this sort, handsome or plain, he will, provided he is a tester, need to keep their price very high, or he will find them sold in spite of his reluctance. There was never yet a breeder who had any difficulty in selling a genuine producer. If dairymen would only take

Mr. W. H. Axford's "Patricia of Warenda."
(Born 23.6.20.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1922–23	7,865	6·18	486·30

up the business of breeding and culling their own herds on the lines indicated, we would see progress instead of stagnation.

In view of what many progressive herd-owners have been proved by this test to have done, and the poor use which the general dairymen have made and are making of similar opportunities, one is forced to the conclusion that better men are even a more urgent need than better cows. If the better men were on the farms the better cows would certainly follow. The material for the latter is already here, all graded and ready for men who can be taught to properly appreciate the use of it. Farm management is deficient in so many of its departments—particularly in that of "feeding"—that when the better bull is bred, his worth too often is never demonstrated because he is only a bull, after all, and has no say in the management of the farm.

What the Herd Test has Achieved.

A high individual yield in this herd test is evidence of a good cow; a high herd yield is evidence of good farm organization as well. These latter, appearing as they do in plenty again this year, are all instances of the human responsibility well shouldered. Considering the droughty nature of the past season it might have been expected that the year's records would not show out in the usual creditable light. In such a time herd-testing becomes a test of the owner as well as the cow. The fact that many of the owners have maintained undiminished yields indicates that they have attained a degree of professional proficiency which holds them above vagaries of the season, so embarrassing to the generality of dairymen.

Mr. T. Harvey's "Empress 2nd of Holmwood."

(Born 14.11.15.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1918-19	6,720	5·44	365·43
1919-20	7,594	5·10	387·66
1920-21	8,747	5·60	491·21
1921-22	8,067	5·57	449·70
1922-23	9,331	5·38	502·32

In scanning the long list of highly payable records and bearing in mind the severity of the dry spell which prevailed during much of the period, one must admire the mastery over feed difficulites which such yields represent—a mastery that was certainly unheard of, and almost as certainly unattainable, in the dark days which preceded the institution of herd-testing. The general dairymen of Victoria—even the long-experienced—have never yet shown themselves capable of such achievement, and here in this test we have young men, and men of

comparatively short dairying experience, succeeding where outside veterans fail. What is the significance of this?

To the successful men themselves it is that they are pounds in pocket; to the officers of this Department, who have been holding this ideal before the dairymen of Victoria for a long time, it is that these men, in not presuming to conduct a dairy farm with untested cows, have had all the advantage which such precaution affords. A man is known by the company he chooses, and it is not mere coincidence that these men, who have most convincingly demonstrated the superiority of their efficiency, have all along made a point of associating themselves with herd-testing and herd-testers. If the standard herd test had not its other even greater purpose in the direction of breed-improvement, this comparatively minor function of educating its patron to sustain good yields against adverse seasonal conditions would justify its establishment. It is safe to say that the practically undiminished production which has marked the leading tested herds this year was attained by few, if any, untested herds throughout the State.

Mr. T. Harvey's Group of four Jerseyholm Cows, all of which gave over 500 lbs. of fat in the 1922-23 Herd Test.

Reading from left to right—Lady Marge of Jerseyholm, Empress of Jerseyholm, Empress 2nd of Holmwood, Graceful Countess of Leisterfield.

Feeding—a Great Necessity.

The most successful dairyman is neither he who believes "it is all in the cow's quality," nor he who contends "it is all in the feed," but he who recognises the equal necessity of both animal-quality and feed. Such is the type of man who stands out among the owners in this test, as men of such convictions stand out above their fellow dairymen everywhere. It is a pleasing fact that owners generally who enter their cows in the herd test do possess, or at least soon acquire, a sense of the much that is due to a cow, and especially a tested cow, in the way of food. But there are always some who are more or less delinquents in this regard. These owners are not doing justice to themselves, the cow, or the Department. When we consider these chronic unprogressives, and the fact also that new herds are always coming in, there is in the following summary of the test's growth, abundant evidence that there must be substantial improvement in the great majority:—

SUMMARY.

Season.	No. of Herds.	Average Cows per Herd.	No. of Cows Tested.	No. of Cows in each Class.			Average Milk per Cow.			Average Butter-fat per Cow.			Year's Highest Fat Yield in each Class.			Average of Fat in each Class in Best Herd.			Best Herd's Average Fat on unity basis.
				Mature Cows.	Post Heifers.	Heifers.	Mature Cows.	Post Heifers.	Heifers.	Mature Cows.	Post Heifers.	Heifers.	Mature Cows.	Post Heifers.	Heifers.	Mature Cows.	Post Heifers.	Heifers.	
							lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1912–13	5	12	62	37	6	19	5,356	4,522	3,494	259	204	152	388	292	256	272	..	209	275
1913–14	16	14	217	141	41	35	5,809	5,243	4,959	261	256	241	585	409	376	361	329	274	377
1914–15	21	16	335	169	59	107	6,420	4,937	4,349	319	258	211	706	499	446	431	369	400	430
1915–16	16	14	225	112	60	53	6,615	5,253	4,191	330	259	220	523	439	347	390	336	272	403
1916–17	21	13	271	172	37	62	6,397	5,458	4,829	317	287	255	542	426	347	445	355	285	424
1917–18	30	12	364	200	64	100	6,714	5,867	5,111	339	317	257	518	441	410	372	354	280	416
1918–19	52	10	499	269	87	143	6,937	6,386	5,405	340	314	276	577	519	494	420	413	366	448
1919–20	76	9	695	390	146	159	6,983	6,432	5,450	321	296	261	719	513	450	449	399	279	440
1920–21	87	10	832	427	187	218	6,657	6,051	5,068	308	283	239	581	582	427	457	468	339	446
1921–22	129	9	1,193	623	231	339	6,903	5,989	5,329	306	274	239	647	498	527	467	455	409	487
1922–23	150	9	1,373	646	299	428	6,806	6,010	5,158	306	271	233	616	524	486	467	524	354	472

The table shows that the average yield of the herds increased steadily during the first seven years, when the rise received a check by an influx of herds which came through their first year of testing very poorly. Similar herds have been entering since whose owners are not yet acquainted with more than the "spade-work" of herd management. It is not desired to write anything other than words helpful to any owner who is sane enough to test his cows, but no owner can hope for much betterment from testing who will not learn to provide his animals with the bare food-material on which they function.

We cannot get away from the fact that a dairy cow is a man-operated animal, and any owner who thinks his particular cows are so exceptional as not to require anything more from him than the extraction of their milk, may be assured that the animal that does not need to be fed does not need to be tested. The fact of the matter is that an under-fed cow cannot be tested in any useful sense of the word. Without the essential backing of adequate and sustained food supply the verdict of the test is worthless. This Department gladly acknowledges its obligation to owners who realize theirs, but does not wish to be a party to the farce of trying to estimate the respective merits of cows which the owners are not allowing to operate normally.

The responsibility for lowness of yield must rest either on the cow or on her owner. The cold type, however, of published records, visits failure all on the cow, which perhaps results in good useful blood being passed by and consequently lost to the industry. This is the last thing to be desired, but it is happening in some instances. As nothing worse would happen if such defaulting owners did not test at all, the exchequer would be well relieved of whatever cost they incur.

Poor records are excusable only in herds not long subject to the test. Even then they should be a spur to betterment. The owner is deserving of little consideration who cannot soon discover how much of the failure is due to under-feeding, or, in other words, to himself. Once this is remedied and fair treatment otherwise assured, any deficiency still remaining must be ascribed to some of the herd being born other than dairy cows. That is the plain fact. It is no good dwelling on the other fact that her breeding goes back to this or that prize-winner, or to a hundred of them for that matter, or even to a sire of producers. If the animal herself is incapable, that should settle it and her. She may be capable of breeding producers, but breeding experiments with such an animal does not befit an ordinary dairyman. All respect should be lost for her as a member of a commercially-run dairy herd, if profits from butter-fat are the consideration. This may be drastic, but, after all, it is the shortest cut to success in dairy farming to-day.

The year's results not only demonstrate the practicability of a dairyman rising superior to the country's only natural drawback, viz., dry weather; but they again bear out the experience of previous years, that it is his practical appreciation of but three factors—the breeding, feeding, and treatment of his milkers—which determine whether the business he is conducting is worth while or not. Where these three essentials receive due consideration the returns are all satisfactory, and *vice versâ*. Although the herd test is conducted as an aid mainly to the breeding side of the dairy farmer's business, it is incidentally

serving to perfect the other essentials as well by its persistently presenting fluctuations of yield before the owner, that are attributable to food supply or treatment. This leads to more interested observation, and this in turn to increased discrimination, without which latter faculty our leading dairymen could not be what they are.

Close observation of milk records soon shows one how close is the connexion between food and milk. It is remarkable the number of men who can see a connexion between some peculiarity of the animal's conformation and her milk yield, and yet fail to realize this really vital one of food supply. If the same amount of attention that is now paid to type could only be diverted to feeding, some really useful reform would be effected in the industry. The lesson of the part played

Mrs. E. M. Lennie's "Sweet Nell of Hillcrest."
(Born 29.10.12.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1920–21	5,616	5·39	302·87
1921–22	9,767	5·17	504·64

by food in milk production has been properly learned only when it brings one to realize that, although the payment is received per pound of butter-fat, the profits are really from the food which went to its making.

It is not contended that any cow can be made into a good yielder by simply giving her more food. Where such an extreme idea is held—and it is surprising the number and class who profess to hold it—there is nothing more likely to dissipate it for ever than a regularly recorded milk chart. While the scales and tester will soon teach one

that for good results a cow of special nature must be bred, they at the same time show that no milk is ever yielded, however suitable the cow, without a sufficiency of the right ingredients being first consumed. Milk has only two sources—the air and the food. Air costs nothing, which explains why fewer cows are suffocated than starved. Once a man discovers that the food is the material from which milk is mainly made, he soon comes to realize the uselessness of having incurred all the other necessary dairy farming costs, if this first essential is to be withheld. Yet this fundamental fact of his business—that milk is mainly converted fodder—remains either undiscovered or ignored by the generality of dairymen. This would appear to stamp them as an unusually ignorant class, but their ignorance on this matter is largely shared by cattle dealers, cattle salesmen, and cattle men generally. Superior to the average farmer as these men may be in matters of commerce, few indeed among them all realize that the dairy animal in which they commonly deal is merely the transforming machine, as useless without a sufficiency of food as a puddling machine without clay.

There is too much of a tendency right through the stock-trading classes—who most constitute the dairyman's associates—to belittle the herd records that are obtained by a dairyman's superior intelligence in the way of hand-feeding. The purchase of bran for dairy cows is spoken of as almost the act of a simpleton. Even a man who trusts solely to pasture is considered a saner fellow.

If this country had no fodder alternative to pasture to offer its dairy cows, it is safe to say that the most successful dairymen in the State to-day would be quick to choose some other means of livelihood. No other class in Victoria except those at present so engaged, could be driven to attempt such folly. If it were not for the increment in land values—called "unearned" by some critics—the negligence of the average farmer to properly feed his cows might well have cost him his farm. Some dairymen there are who stretch their generosity so far as to allow their milking cows any stray hay or straw that the horses will not consume, or that cannot be otherwise disposed of, but the number who appreciate that there can be no satisfactory milk production without an equally satisfactory food supply is few, and is increasing all too slowly.

As long as good cows can be bred—as is being done by our testing owners to-day—that convert all the food above their own body needs into milk, their owner need never worry how busy they keep him filling their manger with foodstuffs, produced mainly on the farm. Such cows' food limit may well be left to their appetites to determine, and their owners may still smile on. The profits of butter-fat being the result of food, it is poor policy to curtail the supply. Rather should one hope he could induce his animals to eat more.

The Cow—A Machine for Producing Milk.

After all, what is the dairyman for? It so happens that human taste is more for milk, butter, and cheese than it is for the grass, chaff, and bran, of which they are made, and quite an extensive industry is required to effect the change. A special machine is used—the dairy cow.

It is many, many years since she was first devised, and human designers have been at work on her almost ever since, till to-day we

have all sorts of models, varying from the ought-to-be-scrapped to the almost incredibly efficient. Her designer is the breeder; her lubricating oil human kindness; her fuel is the carbohydrate and fat ingredient in the food she eats, while the raw material she operates on, to process into milk is the protein and mineral ingredients of the same. If sufficient is not available to her, she does the best she can without it, and her owner does the best he can without the valuable product—butter-fat—it would have made. Some protein and mineral are retained each day to rebuild the machine's parts as they become worn, but any surplus will be converted into milk by an efficient and properly attended machine. The carbohydrate and fat are used as fuel because they

Mr. P. J. Maloney's "Wattle of Springhurst."
(Born 16.7.15.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1917–18	5,768	4·98	287·37
1918–19	6,763	4·73	319·66
1919–20	5,529	5·27	291·54
1920–21	8,092	4·69	379·91
1921–22	9,619	4·95	476·33
1922–23	11,614	5·01	582·39

most readily combine with oxygen inhaled by the lungs to bring about the burning which heats her and drives her working parts. In the food this fuel material is represented by the carbon and hydrogen compounds —starch, sugar, and fat. The latter is a concentrated fuel, meant mainly to meet emergency strains, as in extremely cold weather, when the body's demand for heat exceeds the amount that lower-powered starch and sugar could generate.

In purely mechanical machinery man burns carbon (coal or wood) for generating the power, but in an animal's furnace carbon as such is not combustible or digestible, so that for the animal system we must use the edible form of it, which is carbon that has been so combined

with water by living plant cells as to make it both tasty and digestible. and thus serviceable as body fuel for animals. The carbohydrate which serves as fuel of the cow is thus edible carbon. It is most economically supplied in the form of comparatively coarse or stalky plants, such as the pasture grasses, oaten hay or ensilage, maize (green or as ensilage), and lucerne hay, which class of food is commonly called roughage. Where good grass and clover are available in abundance, practically nothing more is required. Roughage is comparatively easily obtained, and even when dry, less than a full stomach of roughage of good quality is quite effective as the fuel, or mere driving force, of the animal machine; but it is wasting the time and up-keep of a good machine to supply it with only driving power while withholding the material on which it exercises its transforming function. It is equally foolish to limit an efficient cow to the ordinary roughage for milk production, though if her stomach is kept filled there will be always some protein available and digestible enough even in this class of food to make some milk.

The efficiency of roughage for this double purpose deteriorates greatly with advance of the ripening process or increasing dryness. In a nutritious class of plant like ryegrass, clovers, lucerne, or even oats, greenness will so help the digestibility as to make such foods almost independent of all other aid, provided the full appetite can be satisfied. When at their very young and green stage, these plants are not ordinarily referred to as roughage. The word is used generally in connexion with hand-feeding, and refers usually to cured or relatively ripe plant matter. This coarse food, except when in its most digestible green condition, has its proper function in maintaining the animal economy in a state of fitness and efficiency, apart from any work done in the way of milk production. Maintenance, as distinct from production, is its function. This means that it must serve to maintain the animal's body heat at 101½ degrees whenever the surrounding air is below that temperature; drive her heart, lungs, bowels, legs, jaws, tail, ears, and eyelids, &c.

For milk production, in the absence of nutritious greenstuffs at their best, protein can be provided in a much more effective medium than that of roughage, and it is protein that must be used. Milk cannot be made without it. Ordinary roughage contains comparatievly little protein. No purpose is served by supplying in bulky association more than sufficient protein to restore the wear and tear of the working parts. Too much space has to be occupied for the good done.

A heavy milker's stomach-space that remains after maintenance requirements have been met can be used to much better advantage by charging it with foodstuffs richer in the milk-making ingredents, and this foodstuff is known as concentrate, because it contains much complete nutriment in small compass. What makes the concentrates so complete is their high percentage of protein. We need not go into the chemical composition of protein further than to say that its chief distinguishing characteristic is that it contains nitrogen—an extra ingredient—which has been made assimilable to animals by the plants in which it was formed, a process which vegetation performs much more sparingly than the making of carbohydrate. Hence proteid foods cost more money to procure.

All food for milk-making—that is, all food over maintenance—should, in hand-feeding, and in the absence of abundant nutritious green feed, take the form of concentrates. This class of nutriment is chiefly represented in ordinary feeding stuffs by wheat-bran, pollard, the grains of peas, wheat, oats and barley, linseed (meal or cake), and maize polly-feed. The grain stuffs must be finely crushed for ruminating animals, as otherwise much goes right through the digestive tract undigested, and consequently unused.

Except mineral (mainly lime) and a certain food principle connected with greenness, the concentrates contain practically all the food ingredients an animal's body requires; but it never pays to use concentrates for moving the machinery, or maintenance, because roughage, which is cheaper, performs this function just as well. The two classes of foodstuffs should be regulated to their respective functions.

To make clearer the attempt at definition, the chemical analyses is here given of a common roughage (oaten hay) and a common concentrate (bran), so that the disparity in protein may be noted:—

—	Protein.	Carbohydrate.	Fat.
	lbs.	lbs.	lbs.
100 lbs. Oaten Hay contains ..	4·5	43·7	1·5
100 lbs. Bran contains	11·2	42·2	2·5

Although the same weight of oaten hay (or chaff) has less than half the protein of an equal weight of bran, its bulk would be about twice as great, so that to supply the same amount of protein by means of chaff four times the receiving space would be required. Oaten chaff, as usually fed loses anything from a third to a half of its grain in the dung, so that if an attempt is made to substitute it for bran as milk-making ingredient, nearly eight times greater bulk of food material would have to be used. This, on top of that already required for maintenance, makes the consumption of sufficient chaff for a high yield a physical impossibility. The disability of roughage such as chaff is further increased by the fact that the nitrogenous ingredients contained in the leafy portion and the stalk of plants is not so assimilable as the protein of grain or bran, so that even more than eight times by measurement would be needed to supply the same amount of ingredient for milk.

This illustrates at one and the same time the function of food concentrates like bran, and the folly of any man who expects to keep a good cow working at her full capacity without one or other of them. As an in-calf cow advances in pregnancy, some additional food is naturally required, and this can well be concentrates. Concentrates can certainly be used unprofitably, as when they are applied to do work worthy only of cheaper roughage, or when they are thrown away in the attempt to produce milk in an animal not designed for this purpose.

Green feed like lucerne or oats is a great adjunct to any ration. Even alone, its greater solubility, making possible a far quicker passage through the bowels, enables a cow to fill up again and again, and thus

extract an amount of nutriment in a given time in excess of many foodstuffs of better analsyis. Its action is thus like forced draught or oil fuel in boiler furnaces. There is a further principle in leaf-green known as vitamin, which exerts a favorable influence on the digestibility of mineral matter so essential to milk production and nerve tone of the animal. Milk is richer in lime than is lime-water, and there is no doubt that the supply of adequate lime in digestible form is one of the dairyman's chief problems. None of the cereals contains sufficient. Legumes like clover and lucerne, which are not always at command, are thus his only chance of avoiding a deficency. It is, therefore, of particular importance to insure the assimilation of whatever lime ingredient the ration may contain, and there is no better way than by the inclusion of at least some green leafy fodder in the ration at every

Messrs. Flack & Sewell's "Dominion Queen Mercedes."

(Born 2.10.16.) [Photo. by W.R.C.

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1919–20	10,295	3·42	352·02
1920–21	9,063	3·64	330·23
1922–23	15,958	3·69	589·53

opportunity. The farmer should make it his aim to encourage natural clover, and should grow green crops like oats and millet, or better still, lucerne, or even soya bean, with their high lime content, well nigh indispensable if, year in year out, high production is to be maintained.

Mention has been made of the "milking" cow that is incapable of producing much milk however fed—the model that ought to be obsolete on dairy farms, and which it is hoped cattle-breeders will eventually breed either into a beef animal altogether or else out of existence. Dairymen have never yet assessed this beast down to her true relative value as a milking proposition.

Take the average cows in the Mirboo North district herd test, whose owners are progressive enough to have them tested. Their yield was about 180 lbs. of fat. It would be interesting to know what area of land

cows have the run of in that district and its selling price per acre. It may be cheaper than in most parts of the State, but in general a cow that is pasture-fed requires £100 worth of land for maintenance only. This makes a cost against her of £6 a year at least for her food.

Let us suppose that a dairyman who cultivates no land could attend to a herd of sixteen cows for the ordinary dairy employee's wage of £130 a year; that is to say, £8 per cow for labour. Rates on the property and risks on the animal must be allowed another £1 per year. At any rate, by no possibility could a cow yielding 180 lbs. of butter-fat, even on pasture, be estimated to cost her owner less than £15 a year. This sum is nearly enough covered by the yield mentioned, but no more, and what value does it give the cow? The 180 lbs. cow is just quits with her owner at the end of the year. She returns him no greater wage than he could have received from an employer without her. Therefore the value of a 180 lbs. cow to her owner is the sum that could be obtained for her carcass and hide as she stands.

As a dairy cow it is nil. The prices which proven good cows bring may look high, but when compared with what comparatively worthless cows bring in the market, are out of all proportion, low. Until a cow's yield reaches the point where profit over costs begins, she has no value as a dairy cow, but her value then immediately commences to increase. The annual costs are practically the same for a 180 lbs. cow as a 190 lbs. one, yet there is, say, 15s. greater return from the latter. This, capitalized at 5 per cent., makes £15, and the only difference in risk is the extra premium an insurance company would charge for insuring one cow for £15 more than the other. Assume it charges half, or £7 10s. per year premium, this leaves the 190 lbs. cow worth the remaining £7 10s. more than the 180 lbs. animal. Yet what dairyman would be courageous enough to give that sum for only 10 lbs. a year greater butter-fat capacity?

Is it the same want of courage which makes so many hold back from buying a really good bull? A dairyman near Bendigo, adopting the obviously best means of improving his herd, purchased a pure-bred bull of a high producing family. The bull had to be brought from the other district by train. The neighbours regarded the purchase as an act of extravagance. On seeing him being detrained, one wanted to know what the freight cost. He was told £2 10s. "You fool," was the answer; "you could have bought a *bull* in Bendigo cattle market for that."

Review of the Year's Work.

The year was completed with a record of 1,373 cows tested, of which 1,054 qualified for certificates, leaving 319 defaulting animals whose milking worth is at least suspect. The number of herds in which cows were tested was 150. Of these the number containing over ten cows was 48. Provided a herd contains over 10 cows which average over 300 lbs. of butter-fat, the owner is qualified to compete for the prize awarded for the best herd. Only 28 of the herds were able to comply with the latter condition, as compared with 24 last year.

The prize was won by Mr. T. Harvey's herd of Jerseys, which, however, failed to quite equal the record of the winners last year. There is nothing discreditable in this, because the record then obtained by Mr. Mesley's Jerseys was so exceptionally good that it would have

been expecting too much to see it surpassed so quickly. Mr. Mesley's returns do not appear in the herd competition this year, because his herd contained one less than the requisite number of cows.

The winning record this year of Mr. Harvey's herd was 471.82 lbs. of butter-fat per cow. It is a performance to be proud of. The owner has been well in the running for the prize for several years now, being in third place last year with 418 lbs. of fat, and second the year before with 441 lbs. Mr. Harvey has been known in this Department for some time as one of the most efficient dairy farmers in the State. He is one of the younger generation of dairymen, and is essentially of the new school. If he were adopting a motto, none would suit him better than "Excelsior." The State possesses no finer example of what is possible to a man on the land who has the ability as well as

Mr. T. Harvey's "Lady Marge of Jerseyholm."
(Born 13.4.15.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1917–18	4,868	5·80	282·64
1918–19	6,496	6·43	417·80
1919–20	7,339	6·09	447·21
1920–21	7,576	6·10	462·05
1921–22	7,263	5·93	430·42
1922–23	8,056	6·27	505·32

the will to take full advantage of the opportunities of the calling; but it is hardly much use quoting his achievements, because one finds so few men contemplating dairy farming who have anything like the natural qualifications to imitate him.

In Mr. Harvey's hands the farm and the farm animals are managed as they should be, and what more can be said of managing ability anywhere? It is about ten years since Mr. Harvey, after previous experience at butter factory work, took up the closer settlement block of the rich Eoisdale Estate on which he has attained all his success. The area was 40 acres, all river flat, which Mr. Harvey found insufficient to keep him fully occupied. It was not long before he acquired another 40 acres quite handy, and it is doubtful if there is

another 80 acres in the State which has been made to give such satisfactory returns in the way of dairy produce.

The Babcock tester was made an auxiliary from the beginning, and it was not long before Mr. Harvey had a herd of about twenty, all profitable animals. His experience with the grade Jerseys soon infected Mr. Harvey with what he himself describes as "Jersey" fever, and the grades one by one gave place to the pure, all but one which is retained for her extraordinary producing worth.

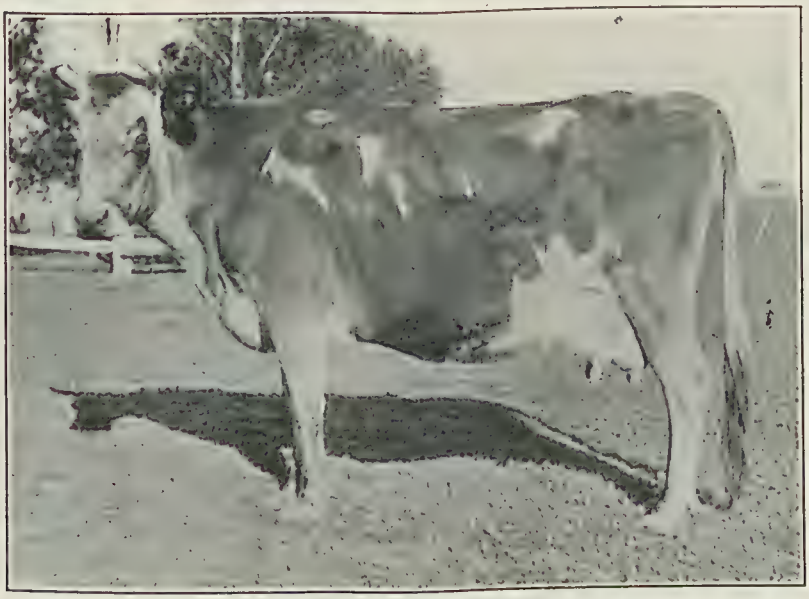
The cows are kindly treated. In fact, the position of the herd to-day is due just to Mr. Harvey's unrelenting insistence on the best possible in the way of the three essentials—breed, food, and animal comfort. He has no mysterious or magical method. Given the same sagacity to understand, the same will to execute, and the same industriousness to keep at it, there is no reason why every dairy farmer in the State could not be getting the same butter-fat yields from his cows as this young breeder. But perhaps that is too much to expect in present circumstances.

The animals on Mr. Harvey's farm are protected by rugs when conditions require it, which are also removed when animal-comfort suggests it. All the bulk food is home-grown, and reserves are always on hand. The cows depend mainly on oat and maize crops. The former is used by grazing in its growing stage, and later conserved as hay and also as ensilage. A little immature maize may be used for its greenness when such is required, and some also fed green when near the mature stage, but the crop is practically all conserved by ensiling. In conserving the oat crop as hay, Mr. Harvey follows the always wise course, with cow-feed, of cutting it very early. The cows thus get nutriment which would otherwise be lost in the imperfectly masticated grain. The usual ration used, when hand-feeding becomes relished, is as much oaten chaff or ensilage (maize or oats, according to season) as the cow will eat, in addition to whatever amount of milk-making concentrate has been proved to be most economical. This, Mr. Harvey finds, varies from 5 to 12 lbs. per day, according to the natural capacity of the animal and also to her stage of lactation. The concentrate used consisted only of bran, crushed barley, and linseed-cake meal. Moderate amounts are mixed in with the chaff about twelve hours before using, damped, and covered with bags to warm. Increases, due to the deserving animals, are made separately when feeding. The Boisdale district enjoyed a good spring, but the autumn was extremely dry. Cropping and conservation overcame this difficulty, and the "drought" passed over the herd without leaving a scar.

Mr. Harvey's first venture with pure Jerseys was made with the purchase of a "Carnation Fox" bull, from Mr. George Chirnside, to mate with his grade cows. Later he obtanied a young bull ex "Wilful Venture", a "Wild Rover" cow, two removes from Mr. Woodmason's famous old cow "Jessie's Progress." "Wilful Venture's" fine record (380, 431, 480 lbs. fat), in the herd of Mr. P. E. Keam, one of the first entrants to this herd test, in 1912, attracted the young breeder's attention, and he had courage enough to pay the price for a bull of such meritorious blood. Two of the cows in the winning herd, "Bluebell of Jerseyholm" (437.2 lbs. fat) and "Kirsty 6th of Jerseyholm" (441.73 lbs.) are by this bull.

Later Mr. Harvey procured a young bull named "Emperor" (964) by "Handsome Boy 3rd of Melrose" (1577), a son of "Pretty Noble." "Emperor's" mother, "Empire 5th of Melrose," was one of Mr. Woodmason's consistent and high producers, and was a daughter of "Pretty Noble." This bull "Emperor" has sired six of the herd's eleven cows.

The herd's best cow, "Empress of Jerseyholm," which has yielded 524.44 lbs. fat on only her second calf, is out of an "Audrey Lord Twylish" cow, "Empress 2nd of Holmwood," mated with "Emperor." The blood of two famous bulls has thus met in this fine young cow. "Emperor's" blood becomes linked up with that of "Venture's Hero"



Mr. T. Harvey's "Graceful Countess of Lesterfield."

(Born 22.9.16.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1918–19	4,776	6·55	312·72
1919–20	5,443	6·91	376·20
1920–21	5,378	6·33	340·25
1921–22	5,851	6·01	351·50
1922–23	8,924	5·85	523·31

in another daughter, "Kirsty 8th of Jerseyholm" (465.89 lbs. fat). "Lady Marge 2nd," which, on her first calf, has yielded 404 lbs. of fat, is also by "Emperor."

A double cross of "Emperor" is seen in another fine heifer, "Sparkle 4th of Jerseyholm" (392.85 lbs.) through her mother, "Sparkle 3rd" (371.40 lbs. on first calf), and her sire, "New Alliance" (1368).

The above represents the attention which has been given to the "breeding" side of the business, and furnishes but another of the many instances of the hereditary transmissibility of dairy character and how it can be exploited by one recognising it. It all comes of

being "fool" enough to buy a pure bull of high producing blood instead of the type of Bendigo bull previously referred to.

TABLE SHOWING PROGRESS OF THE PRIZE-WINNING HERD.

Season.	Average Yield of Butter Fat per Animal.		
	Heifers.	Post Heifers.	Mature Cows.
1915–16	278	310	None in test
1916–17	315	357	388
1917–18	283	346	394
1918–19	308	418	347
1919–20	322	370	418
1920–21	321	410	443
1921–22	334	395	399
1922–23	354	524	467

Messrs. Jones & Sons' "St. Alban's" herd of Friesians are in second position, and if their breeding be traced, it will be found that each animal has united in its "make-up" the blood of animal after animal of similarly high production.

It is the aim of this herd test to have only such "producing" blood, irrespective of breed, used in every dairy herd in the State in which young stock are reared. It is no good hoping for an easier way. At any rate, it is a much easier way than that in which the dairyman who will not adopt it must continue to flounder.

The Best Cows in the 250 lbs. or Mature Cow Class.

The record of the leading cow this year is 615.51 lbs. Ragtime of Warenda, the cow which has exceeded all her fellows this year, is owned by Mr. T. Mesley, whose herd broke all records last year. We have not the satisfaction of publishing Mr. Mesley's herd record among the competing herds this year, because of the herd being one cow short of the requisite number.

Ragtime's ability is now well known. In her heiferhood days she topped the list with 427.24 lbs. fat, and the following year got into second place with 482.14 lbs. She possesses a remarkably high test, the last four tests of her last lactation going over 8%. She is out of Mr. Mesley's tested cow Pibroch (5256), 469.07 lbs., a grand daughter of old Music, by Skim of Dunalister (1227), and is by the Melrose-bred bull, Jessie's Handsome Boy (1011), two bulls whose merits were extensively mentioned in last year's report among the comments on Mr. Mesley's success.

In second place with 596.24 lbs. is Mr. C. D. Lloyd's Werribee Starbright 9th, the cow which on her second calf topped the list over all the aged class cows two years ago, and following it up last year with another fine record of 511.44. She was bred by Mr. Geo. Chirnside, as her name indicates, and is by his imported bull, Island Butter King (929).

In third place the breed changes from Jersey to Friesian in Messrs. Flack and Sewell's fine producing cow, Dominion Queen Mercedes (589.53 lbs. fat), which yield, following on the famous performance of her half-sister, Dominion Segis Fobes, last year, is another testimony to the valuable prepotency of their sire in common, Woodcrest Jo.

Mr. P. J. Maloney's Czarina, of Springhurst, which brings the descent in order of merit back to the Jersey breed, is a cow we have heard of before. The yield of 583.30 lbs., by which she holds fourth place this year, is her seventh tested lactation, her previous best being 536.84 lbs. She is out of a cow whose progeny are standing out as producers wherever they are being tested, viz., Princess of Springhurst, a cow which herself stood out as one of the best in Mr. J. D. Read's herd in the early days of testing.

F. Trevaskis' "Miss Guy of Tarnpirr."

(Born March, 1920.)

Season.	Milk. lbs	Test.	Butter Fat. lbs.
1922-23	7,422	6·08	451·54

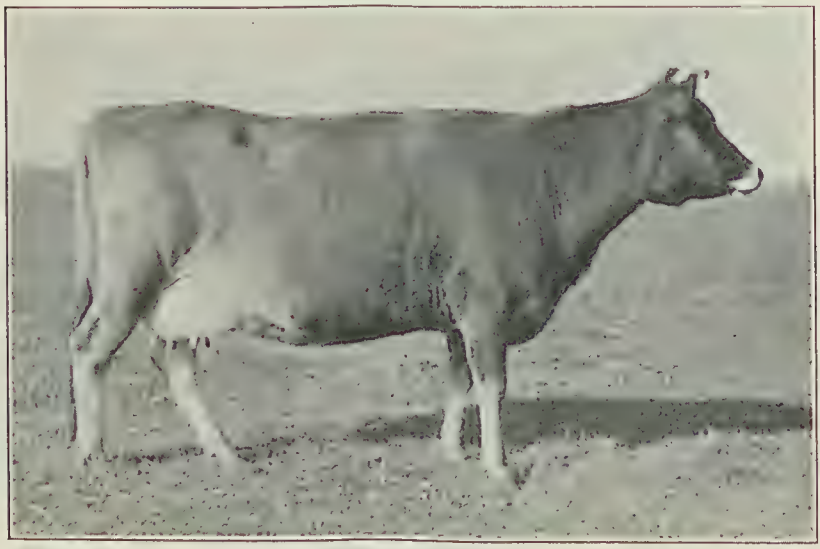
Another great producer of Mr. Read's breeding, now in Mr. Maloney's good hands, is the fifth place cow, Wattle of Springhurst, which has yielded 582.39 lbs. on this, her sixth lactation.

Figuring in sixth place is another representative of Mr. T. Mesley's in Keynote (537.05 lbs.), by Skim of Dunlister, out of Harmony 2nd. Skim of Dunlister's success as a begetter of high producers is already well known.

Seventh place is held by the Department's consistent Friesian, Dominion Hyacinth, with 535.98 lbs., and eighth place by another animal of the same breed, the now familiar May Queen 2nd, belonging to Messrs. Jones and Son. The latter has five fine lactations to her credit in this test, reaching on one occasion 616.61 lbs., when she was third top cow. She was also highest heifer in her year.

The cow occupying ninth position is Mr. T. Harvey's Graceful Countess of Lesterfield, 523 lbs. fat, by Handsome Boy 3rd (1577), a son of Pretty Noble (imp.). This cow has thus the same sire as "Emperor," and, as her name indicates, comes of the Melrose family of Graceful Duchesses, being, through her dam, but two removes from old Graceful Duchess 8th, one of the very best of that high producing ilk.

Some reference is again due to Mr. A. W. Jones' 12-year old cow, Jubilee 15th. For six years now this old consistent performer has shown up in the records, being thirteenth in 1917, second in 1918, fifth in 1920, nineteenth in 1921, sixth in 1922, and tenth this year. Her average butter-fat over the six official lactations is just 500 lbs.—the best record of any cow over that extended period. She is by the old-time bull, Navigator, the sire of many high producers.



Mr. T. Harvey's "Empress of Jerseyholm."

(Born 23.7.19.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1921-22	6,890	5·81	409·43
1922-23	8,952	5·86	524·44

The breed changes again with the eleventh place, this being held by Messrs. Dickinson's Friesian "Pauline of Ashby" (514 lbs. fat), which again appears as their star performer. It only shows what there is in inherited capacity, when the same cow shows out year after year over herd mates like this. In twelfth place, the Red Poll's representative, "Tonga" (513 lbs. fat), of the Department's Werribee Research Farm herd, enters the lists—another fine instance of consistently superior production. The 505-lbs. yield of Mr. Harvey's "Lady Marge of Jerseyholm" brings the Jerseys again into line. These Lady Marges have an interesting pedigree. This 505-lbs. cow, mother of the

" Emperor " heifer, " Lady Marge 2nd," has for her parents a son and daughter of Sweet Fox, and on the Lady Marge side comes down from the old-time imported " Black Antimony 360, which bull was probably responsible through his son. Garantie's Antimony 715, for the high-producing quality of the Lady Greys and other of Mr. Jones' creditable performers that were close up to him in their pedigrees. The way in which production is associated with prior production is each year becoming more marked. So linked up now are the blood lines of our high producers that the ramifications are almost too bewildering to trace back further than a few generations.

The next cow (14th) on the list, " Sweet Nell of Hillcrest " (504.64 lbs. fat), owned by Mrs. Lennie, is by Black Prince of Mt. Crawford 1191, also a descendant of Black Antimony (imp.).

Department of Agriculture's "Tonga."

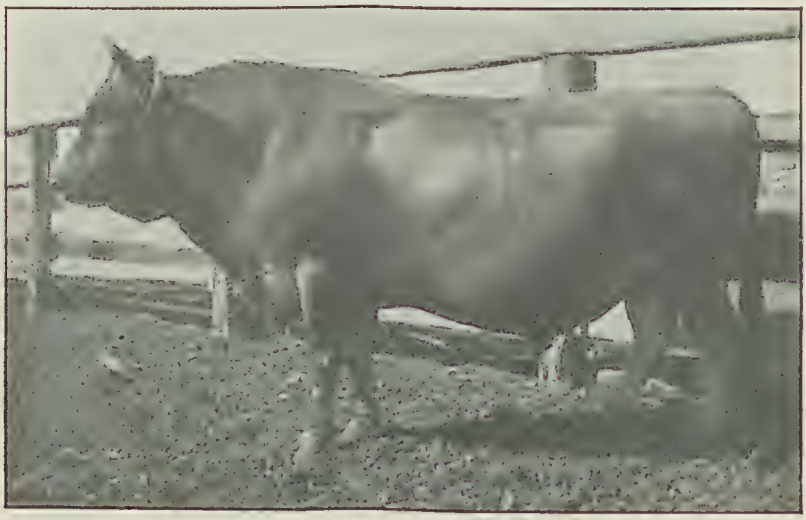
(Born 23.5.13.)

Season.	Milk. lbs.	Test.	Butter Fat. lbs.
1916–17	6,452	4·53	292·74
1917–18	8,290	4·21	349·04
1918–19	8,841	4·34	383·83
1920–21	9,986	4·24	423·83
1921–22	10,066	4·06	408·44
1922–23	12,306	4·16	512·90

The Department has another Red Poll in " Latakia " to exceed the 500-lbs. mark. She was by the successful sire " Nicotine," and had " knocked up " five good records to her credit before her premature death last year. An " Audrey's Lord Twylish " cow comes sixteenth. This is Empress 2nd of Holmwood (502 lbs. fat), dam of Mr. Harvey's highest yielding herd member this year. And so the connexion between one high producer and another can be traced right down the list much further yet, but space forbids. A record worthy of special note, however, is the 423.65 lbs. of the 14-year-old veteran, " Flower 6th of Melrose," in Mr. Woodmason's herd. This cow is by " Royal Blue," one of Mr. Woodmason's prepotent herd-series of the long ago. Flower's

lactation, which appears this year, is her ninth in this test, and the figures are of real interest and value—

Calved.	Milk.	Test.	Butter Fat.	Milk Last Day.
	lbs.		lbs.	lbs.
23.11.13	6,002	5·77	346·18	19
11.10.14	5,274½	6·14	324·17	13
2.11.15	7,109½	5·50	390·72	21
7.12.16	6,867	5·50	377·94	22½
8.3.18	7,933	5·55	439·23	27
30.4.19	8,486	5·24	444·32	25
17.5.20	8,503	5·20	442·51	22½
14.6.21	8,122	5·17	420·08	22½
23.7.22	8,292	5·11	423·65	19



Mr. T. Harvey's Emperor (964)—the sire of the majority of the animals of the Winning Herd.

Another good performance as an "old buffer" is that of Mr. J. G. Lobb's Ayrshire, "Maud 2nd of Holly Green" 4773. At 19 years she has just completed a yield of 6,485 lbs. of milk, with an average test of 4.62, making a fat yield of 299.87 lbs.

The 200 lbs. or Post Heifer Class.

In this class there are two cows to exceed 500 lbs. of fat, viz., Empress of Jerseyholm, before referred to, and Mr. C. Deverell's "Gold Bell of Methven." The latter's yield of 516.22 lb., following on one of 413-lb. as a heifer, makes her a very promising class of animal. She is by "Bloodshot of Tarnpirr," who in turn is by "Morocco's Carnation Fox" (500), which bull left so much good stuff at "Tarnperr," which has since become introduced into many various herds of the State, through the dispersal of that stud.

175 lbs. or Heifer Class.

In view of the fine records put up by Mr. Mesley's herd in late years, there is significance in two fine records at the top of the heifer order of merit. These—the first and third—are two typical "Warenda" producers transferred to a new district, and repeating their achievements there. The first is "Patricia of Warenda" (486 lbs. fat) by Jessie's Handsome Boy out of Alsyke of Springhurst, the dam also of "Agnes of Warenda," last year's record heifer. The other, in third place, is "Lady Lauder of Warenda," by Choirmaster of Warenda, out of "Ragtime of Warenda," top cow this year. It is pleasing to see young men making good, and the success of Mr. Trevaskis' heifer, "Miss Guy of Tarnpirr," which obtained second place in the heifer's list with a yield of 451½ lbs. fat, should convince the owner that he was not ill-advised in adopting pure-bred cows for his dairy farm. The cow combines "Melrose" and "Tarnpirr" blood, going back through the former to her great grandsire, "Pretty Noble" (imp.).

All are advised to study these heifer records as they descend in merit. There are numbers of them which cannot be referred to here, but which, neverthless, do the pedigrees credit. Such blood can be recommended to any one looking for a young bull with which to breed-up the herd yields to payable dimensions.

During the year 44 new herds have been entered for testing. The names of the owners are given as follows, under the cows' respective breeds:—

Jersey.

F. Austin, Avalon.
W. H. Axford, Camperdown.
J. E. Chadderton, Hamilton.
Clyne Bros., Tinamba.
E. O. Cudmore, Coldstream.
H. Dettmann, Kyneton.
P. P. Ducat, Shepparton.
S. Earle, Merricks.
A. E. Fewster, Nilma.
W. Fixter, Boisdale.
Fixter and Sons, Boisdale.
Gibson Bros., Trafalgar.
R. J. Henry, Euroa.
J. A. Huffer, Gormandale.
G. H. Jones, Clyde.
K. McGarvie, Pomborneit.
D. Peter, Mornington.
R. Purnell, Moriac.
A. Robertson, Tooradin.
W. B. Ronald, Pakenham East.
R. Vict, Trentham.
C. Wade, Camperdown.
F. E. Wilcox, Lilydale.

Shorthorn.

S. T. Algie, Murraydale.
S. H. Ebery, Newstead.

Friesian.

H. Allez, Tatalia.
J. Carter, Marong.
R. Ferguson, Riddell.
Flack and Sewell's Balmerino Dairy.
E. Talbot Jones, Clematis.
Red Cross Farm, Janefield.
Smith and Sons, Woodend.
A. G. Tedcastle, Toolern Vale.
J. F. Williams, Yinnar.

Ayrshire.

A. E. Castle, Swan Hill.
J. Ingram, Sunbury.
J. G. Lobb, Clyde.
Longerenong Agricultural College.
E. O'Donohue, Kilmore.
J. F. Tuckey, Alberton.

Red Poll.

Evans Bros., Lima East.
J. T. O'Loughlin, Dandenong
Warragul High School.

STANDARD COW PRIZES, 1922-23.

The following prizes are offered by the Government for the year ended 30th June, 1923. The prizes will be awarded through the Royal Agricultural Society:—

1. *Grand Champion Cow*—under Herd Test Regulations.

   A grand champion prize of £100, as a trophy or cash, for maintaining the position of annual champion for three years, not necessarily in succession. (Not yet been won.)

2. *Annual Champion Cow*—under Herd Test Regulations.

   A prize of £10 to be awarded to the cow which, during a lactation period terminating within a year ending on 30th June, gives the greatest amount of butter fat under the Herd Testing Regulations of this Department.

   Won by **Ragtime of Warenda.** Owner, T. Mesley.

3. *Reserve Annual Champion*—under Herd Test Regulations.

   A prize of £5 to be awarded to the cow attaining second place, under the Herd Testing Regulations of this Department, during the year ended 30th June.

   Won by **Werribee Starbright 9th.** Owner, C. D. Lloyd.

   These prizes to be awarded conditionally upon the winning cow being exhibited at the next Royal Agricultural Show. In the event of the death of the winning cow prior to such Show, the owner is to exhibit his next best cow.

4. *Best Herd*—under Herd Testing Regulations.

   A prize of £20 and a second prize of £10 to be awarded to the herds giving the greatest average returns under the Herd Testing Regulations of this Department, and complying with the following conditions:—

   (1) A minimum of ten cows to complete the test during the year.

   (2) Such herd to average not less than 300 lb. of butter fat. Handicaps to be allowed on the following scale: —

   (*a*) A herd of more than 10 cows to receive a handicap per cow of an amount of butter fat equal to ½ lb. for each cow in the herd.

   (*b*) Cows entered under Regulation 6a to receive a handicap of 75 lb. of butter fat.

   (*c*) Cows entered under Regulation 6b to receive a handicap of 50 lb. of butter fat.

   The prizes to be allotted for the year ended 30th June, and three cows of the winning herd, are to be exhibited at the next Royal Agricultural Show, with placards setting out their respective butter-fat yields.

   First prize won by the "Jerseyholm" Jersey Herd; owner, **Mr. T. Harvey.**

   Second prize won by the "St. Albans" Friesian Herd; owner, **Messrs. A. W. Jones & Son.**

No cow may compete for any prize unless she re-calves within fifteen months from her previous calving date.

HERD AVERAGES.

Detailed Returns of the two Prize-winning Herds.

1st. Mr. T. HARVEY'S "Jerseyholm" Herd (Jersey).

Cows of the Herd in their Respective Classes.		Butter Fat.	Average Fat per Cow.
		lbs.	lbs.
7 Mature Cows yielded		3,268·08	466·87
1 Second-calf Cow yielded	524·44 lbs.	..	524·44
Handicap of 50 lbs. each	50·00 „		
		574·44	
3 Heifers yielded	1,062·03 lbs.	..	354·01
Handicap of 75 lbs. each	225·00 „		
		1,287·03	
Butter fat return from herd (without herd allowance) ..		5,129·55	
11 Cows in herd allowed 5½ lbs. each (the ½ lb. allowance per cow) ..		60·50	
Herd total of Butter fat (including all handicap allowances) ..		5,190·05	**471·82**

2nd. Messrs. A. W. JONES & SON'S "St. Albans" Friesian Herd.

Cows of the Herd in their Respective Classes.		Butter Fat.	Average Fat per Cow.
		lbs	lbs.
9 Mature Cows yielded		3,576·74	397·42
9 Second-calf Cows yielded	3,412·21 lbs.	..	379·13
Handicap of 50 lbs. each	450·00 „		
		3,862·21	
10 Heifers yielded	2,992·99 lbs.	..	299·30
Handicap of 75 lbs. each	750·00 „	3,742·99	
Butter fat return from herd (without herd allowance ..		11,181·94	
28 Cows in herd allowed 14 lbs. each (the ½ lb. allowance per cow) ..		392·00	
Herd total of Butter fat (including all handicap allowances) ..		11,573·94	**413·35**

Averages in Detail of the Herds which Averaged Over 300 lbs. Butter Fat per Cow.

Order of Merit.	Owner.	Breed.	Average Yield without any Allowance.						Herd Yield with all handicap allowances.
			Heifers.		2nd Calf.		Mature Cows.		
			No. in Herd.	Average Butter Fat.	No. in Herd.	Average Butter Fat.	No. in Herd.	Average Butter Fat.	
				lbs.		lbs.		lbs.	lbs. fat.
1	T. Harvey	Jersey ..	3	354·01	1	524·44	7	466·87	471·82
2	A. W. Jones & Son ..	Friesian ..	10	299.30	9	379·13	9	397·42	413·35
3	Finn Bros.	Jersey ..	1	286.73	1	358·45	9	401.21	403·78
4	W. Woodmason ..	,, ..	15	276·28	3	353·74	26	393.59	401·85
5	G. Lyon	,, ..	6	300.88	3	323·59	7	399·23	393·66
6	J. D. Read	,, ..	10	271·19	9	349·16	9	387·49	390·49
7	Lyon & Kerr	,, ..	10	299·54	2	323·00	2	386·87	383·08
8	W. K. Atkinson ..	Shorthorn ..	6	254·81	4	381·36	6	376.61	380·75
9	Mrs. E. M. Lennie ..	Jersey ..	2	322·46	1	387·66	11	360·96	378·66
10	O. J. Syme	Friesian ..	8	254·83	4	356·15	12	370·29	374·78
11	H. Luxton	Jersey ..	6	242·00	8	319·94	4	386·40	364·95
12	C. Bamford	Ayrshire ..	12	243·96	6	325·73	8	355·94	356·43
13	C. D. Lloyd	Jersey ..	3	297·72	2	256·07	9	349·99	355·58
14	A. W. Jones & Son ..	,, ..	11	244·90	3	298·66	8	361·08	349·80
15	J. T. Tweddle ..	Friesian ..	7	275·53	5	273·29	..	..	345·18
16	Department of Agriculture	Red Poll ..	14	219.45	6	273·21	20	343·07	343·07
17	Flack & Sewell ..	Friesian ..	16	244.26	7	301·75	15	312·04	341·40
18	E. A. Denis	Jersey ..	5	250·16	3	300·67	9	330·96	341·23
19	Geelong Harbor Trust ..	Ayrshire ..	10	242·32	3	308·33	15	305·72	329·50
20	S. Russell	Friesian ..	4	291·21	2	256·75	7	294·61	325·01
21	Messrs. Kerr Brothers ..	Shorthorn ..	7	254·05	..	..	13	312·77	328·47
22	H. S. Gibson	Ayrshire ..	4	233·68	6	257·41	5	328·03	322·12
23	A. W. Findlay ..	Jersey ..	2	276.12	4	275·06	7	300·00	322·07
24	Alston Estate ..	,, ..	4	200·62	3	323·92	6	309·99	320·67
25	A. Joshua	,, ..	5	251·04	3	207·60	2	337·80	312·86
26	R. Ralston	Ayrshire ..	6	227·65	7	252·74	2	310·22	311·87
27	C. Lees	,, ..	5	226·93	7	281·94	10	254·78	301·05
28	F. Bidgood	Jersey ..	2	215·97	2	322·96	9	277·89	301·03

COWS IN ORDER OF MERIT.

Cows over 4 Years of Age or on Third Lactation Period—250 lbs. Standard.

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
1	Ragtime of Warenda ..	T. Mesley ..	Jersey ..	9,186	6·70	615·51	Jessie's Handsome Boy
2	Werribee Starbright 9th	C. D. Lloyd ..	,, ..	10,297	5·79	596·24	Island Butter King (imp.)
3	Dominion Queen Mercede	Flack and Sewell ..	Friesian	15,958	3·69	589·53	Woodcrest Jo
4	Czarina of Springhurst	P. J. Maloney ..	Jersey ..	11,010	5·30	583·30	Young Defiance
5	Wattle of Springhurst ..	P. J. Maloney ..	,, ..	11,614	5·01	582·39	Brighton Cub
6	Keynote	T. Mesley ..	,, ..	9,513	5·65	537·05	Skim of Dunalister
7	Dominion Hyacinth ..	Department of Agriculture	Friesian	13,532	3·96	535·98	Oak de Kol 2nd Homestead Fobes
8	May Queen 2nd ..	A. W. Jones and Son	,,	12,587	4·24	534·26	Annette's Prince
9	Graceful Countess of Lesterfield	T. Harvey ..	Jersey ..	8,924	5·85	523·31	Handsome Boy 3rd
10	Jubilee 15th	A. W. Jones and Son	,, ..	10,205	5·07	518·21	Navigator
11	Pauline of Ashby ..	Dickinson Bros. ..	Friesian	15,149	3·40	514·47	Pearl's Prince of Brundee
12	Tonga	Department of Agriculture	Red Poll	12,306	4·16	512·90	Honingham Archbishop
13	Lady Marge of Jerseyholm	T. Harvey ..	Jersey ..	8,056	6·27	505·32	Sweet Fox 2nd
14	Sweet Nell of Hillcrest	Mrs. E. M. Lennie..	,, ..	9,767	5·17	504·64	Black Prince of Mt. Crawford
15	Latakia	Department of Agriculture	Red Poll	10,797	4·66	504·08	Nicotine
16	Empress 2nd of Holmwood	T. Harvey ..	Jersey ..	9,331	5·38	502·32	Audrey's Lord Twylish
17	Dominion Violet Fobes	Flack and Sewell ..	Friesian	14,536	3·43	497·91	Woodcrest Jo
18	Silvermine 16th of Banyule	W. and G. Finn ..	Jersey ..	8,878	5·59	496·65	Mabel's Chief
19	Stumpy 4th of Holmwood	Mrs. E. M. Lennie..	,, ..	9,912	5·01	496·39	Audrey's Lord Twylish
20	Jenny Lind 10th of Melrose	W. Woodmason ..	,, ..	9,398	5·22	490·74	First Choice of Melrose
21	Jonquil of Springhurst	J. D. Read ..	,, ..	7,500	6·50	487·62	Attraction of Springhurst
22	Queenie of Ashby ..	Dickinson Bros. ..	Friesian	12,604	3·86	486·95	Pearl's Prince of Brundee
23	Lassie Fowler 7th of Melrose	W. Woodmason ..	Jersey ..	7,953	6·11	486·27	Handsome Boy 5th of Melrose
24	Dominion Coringa ..	Department of Agriculture	Friesian	14,334	3·38	484·08	Woodcrest Jo
25	Creamy 3rd of Lesterfield	Gibson Bros. ..	Jersey	8,300	5·16	482·40	Lesterfield Boy
26	Morven Queenie 8th ..	Kerr Bros. ..	Shorthorn	12,124	3·95	478·66	Manor York Rose 1st
27	Babe of Medburn Grove	C. Bamford ..	Ayrshire	11,921	3·99	475·22	Leo of Glencira
28	Dominion Segis Fobes ..	R. Ferguson ..	Friesian	15,160	3·13	474·14	Woodcrest Jo
29	Bolobek Janet ..	J. Wills	,, ..	12,927	3·66	473·42	Rhoda Prince of Rubicon
30	Lily 6th of Melrose ..	A. E. Denis ..	Jersey ..	8,132	5·80	471·87	Handsome Boy 3rd of Melrose
31	Nictitana	Department of Agriculture	Red Poll	9,961	4·72	470·40	Nicotine
32	Duplicate Posch Maud	O. J. Syme ..	Friesian	13,665	3·42	466·75	Duplicate Posch
33	Graceful Duchess 10th of Melrose	W. Woodmason ..	Jersey ..	8,009	5·82	466·48	Jessie's 4th Son of Melrose
34	Kirsty 8th of Jerseyholm	T. Harvey ..	,, ..	8,226	5·66	465·89	Emperor
35	Soprano 2nd of Banyule	C. G. Lyon ..	,, ..	8,025	5·67	465·37	Mabel's Chief
36	Science of Springhurst ..	W. and G. Finn ..	,, ..	8,254	5·64	465·23	Brighton Cub
37	Dominion Violet Fobes	Flack and Sewell ..	Friesian	13,676	3·40	465·03	Woodcrest Jo
38	Lady Choice of Tarnpirr	W. Tendeson ..	Jersey ..	8,088	5·74	464·15	First Choice of Melrose
39	Zillah 2nd	Evans Bros. ..	Red Poll	10,855	4·25	461·61	Redman
40	Virginia of Springhurst	J. D. Read ..	Jersey	7,504	6·13	460·12	Haig of Springhurst
41	Quality 8th of Melrose ..	J. Hunter ..	,, ..	8,008	5·66	453·22	Handsome Boy 5th of Melrose
42	Bluebell of Warrook ..	H. J. Munro ..	Ayrshire	11,157	4·06	452·86	Alice's Jamie of Oakbank
43	Molly 6th of Banyule ..	C. G. Lyon ..	Jersey ..	9,744	4·63	451·21	Audrey's Lord Twylish
44	Silvermine 18th of Banyule	C. G. Lyon ..	,, ..	8,096	5·55	449·13	Mabel's Chief
45	Goldy of Strathbow ..	F. Raggatt ..	,, ..	7,516	5·90	443·33	Mac of Tarnpirr
46	Graceful Duchess 14th of Melrose	W. Woodmason ..	,, ..	7,586	5·84	442·87	Handsome Boy 5th of Melrose
47	Sunset Star of Dunalister	Leongatha High School	,, ...	8,080	5·47	441·97	Lord Brighton of Dunalister
48	Kirsty 6th of Jerseyholm	T. Harvey ..	,, ..	7,142	6·18	441·73	Venture's Hero
49	Seaweed of Springhurst	W. and G. Finn ..	,, ..	8,398	5·26	441·71	Investigator of Melrose
50	Lily of Holly Green ..	H. L. Webb ..	Ayrshire	10,504	4·20	441·17	Rex of Oakbank
51	Peerless of Ferntree Vale	Gibson Bros. ..	Jersey ..	7,965	5·54	441·01	Linda 2nd's Lad of Kings Vale
52	Brighton Princess of Springhurst	C. Deverell ..	,, ..	9,138	4·82	440·69	Brighton Cub
53	Her Royal Highness ..	A. W. Jones and Son	Friesian	14,415	3·06	440·68	Pearl's Prince of Brundee
54	Chevy 8th of Melrose ..	W. Woodmason ..	Jersey ..	7,731	5·68	439·06	Pretty Noble (imp.)

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
55	Graceful Duchess 19th of Melrose	W. Woodmason ..	Jersey ..	6,800	6·44	438·21	Handsome Boy 5th of Melrose
56	Cielia of Woorayl ..	Leongatha High School	,, ..	8,148	5·37	437·75	Butter Boy
57	Bluebell of Jerseyholm..	T. Harvey ..	,, ..	7,380	5·92	437·20	Venture's Hero
58	Bud 2nd of View Point..	H. D. W. Canobio..	Ayrshire	10,492	4·17	437·07	Glen Elgin's Ben
59	Tarrawarra No. 15 ..	J. Carter ..	Friesian	9,658	4·52	436·73	Tarrawarra No. 2
60	Roan Daisy 18th ..	W. K. Atkinson ..	Shorthorn	10,098	4·31	436·12	Poplar Vale Prince 9th
61	Graceful Duchess 11th of Melrose	W. Woodmason ..	Jersey ..	6,971	6·21	433·03	Mystery's Son of Melrose
62	Nimitabel of Kameruka	F. Trevaskis ..	,, ..	9,543	4·55	432·51	Silver King
63	St. Albans Gem ..	A. W. Jones and Son	Friesian	12,721	3·31	431·22	Pearl's Prince of Brundee
64	Edith 6th of Melrose ..	W. Woodmason ..	Jersey ..	7,187	5·99	430·44	Handsome Boy 5th of Melrose
65	Daphne 13th	W. K. Atkinson ..	Shorthorn	11,792	3·65	430·41	Blakeston Prince 18th
66	Domino's Hengerveld Belle	O. J. Syme ..	Friesian	11,963	3·60	430·29	King of Dominoes
67	Beauty of Craigneil ..	A. W. Jones and Son	Friesian	11,999	3·58	428·96	Canterbury Statesman
68	Clover of Sparrovale ..	Geelong Harbour Trust	Ayrshire	8,200	5·22	428·24	Glen Elgin's Rover
69	Cornflower of Springhurst	J. D. Read ..	Jersey ..	7,976	5·37	427·96	Brighton Cub
70	Queen Elizabeth ..	Department of Agriculture	Red Poll	9,621	4·44	427·64	Nicotine
71	Daphne 4th of Ferndale	D. C. Miller ..	Jersey ..	7,314	5·83	426·36	Lord Grey
72	Mary Anne of Banyule..	H. Luxton ..	,, ..	8,405	5·07	426·22	Earl Twylish of Kameruka
73	Pansy 7th of Kyora ..	F. Bidgood ..	,, ..	8,427	5·03	425·52	Young Defiance
74	Cutty Sark	Department of Agriculture	Red Poll	10,106	4·20	424·11	Belligerent
75	Lady Perfection ..	W. H. Waycott ..	Jersey ..	7,216	5·88	423·99	Perfection's Lad of Kings Vale
76	Flower 6th of Melrose ..	W. Woodmason ..	,, ..	8,292	5·11	423·65	Royal Blue
77	Gloria of Brookside ..	W. Tendeson ..	,, ..	7,059	5·96	420·75	Reynard Twylish
78	Trixie of Ever Green ..	H. S. Gibson ..	Ayrshire	8,956	4·79	418·86	General Gordon
79	Trixie 2nd of Linden ..	F. W. Beischer ..	Jersey ..	8,130	5·15	418·69	Defence of Linden
80	Golden Noble Duchess	C. D. Lloyd ..	,, ..	6,282	6·62	416·09	Golden Fern's Noble
81	Buttercup of Bonshaw	P. J. Maloney ..	,, ..	7,429	5·60	415·83	The Pilot of Tarnpirr
82	Lassie 4th of Clover Flat	F. Raggatt ..	,, ..	8,730	4·76	415·56	Prince Noreen
83	Daffodil	J. H. O'Loughlin ..	Red Poll	8,841	4·92	414·77	Cubata
84	Bridesmaid of Clarendoneyre	W. and G. Finn ..	Jersey ..	9,026	4·58	413·44	Lotina Larkspur's Twylish
85	Banksia of Springhurst	Mrs. I. Beard ..	,, ..	7,728	5·34	413·02	Bulwark
86	Mistletoe 2nd of Tarnpirr	A. E. Denis ..	,, ..	7,592	5·42	411·54	First Choice of Melrose
87	May of Clover Flat ..	F. Raggatt ..	,, ..	7,683	5·35	411·12	Prince Noreen
88	Avesia	Department of Agriculture	Red Poll	9,833	4·17	410·84	Nicotine
89	Sarah of Glen Alvie ..	G. Gange ..	Ayrshire	8,391	4·89	410·47	Triumph of Glencira
90	Primrose 2nd of Melrose .	R. H. Maher ..	Jersey ..	6,994	5·87	410·21	Golden Fern's Viscount (imp.)
91	Beauty 2nd of Bonshaw	P. J. Maloney ..	,, ..	7,291	5·61	409·34	Laddie 2nd of Banyule
92	Pansy 4th of Ferntree Vale	Gibson Bros. ..	,, ..	7,115	5·73	407·90	Linda 15th's Twylish of Kings Vale
93	Springfield de Kol ..	Flack and Sewell ..	Friesian	10,303	3·97	407·52	Rosevale Inka Sylvia Posch
94	Tulip 2nd of Meridale ..	W. and G. Finn ..	Jersey ..	8,244	4·95	407·25	Dinah's Model of Kings Vale
95	Laura 9th of Melrose ..	W. Woodmason ..	,, ..	6,715	6·05	406·36	Pretty Noble
96	Quality 8th of Melrose	W. Woodmason ..	,, ..	6,591	6·16	406·33	Handsome Boy 5th of Melrose
97	Gingerbread	C. D. Lloyd ..	,, ..	7,281	5·58	406·11	Mabel's Chief
98	Escape of Murndal ..	W. and G. Finn ..	,, ..	8,709	4·66	405·87	Canary's Lad 13th
99	Tongala Queenie ..	S. Russell ..	Friesian	7,274	5·58	405·79	
100	Woodruff Lady Monda..	H. Luxton ..	Jersey ..	8,074	5·02	404·98	Lord Richmond
101	Thelma of Meryula ..	A. W. Jones and Son	,, ..	8,139	4·97	404·64	Larkspur's Twylish 2nd
102	Beauty of Tarnpirr ..	A. W. Jones and Son	,, ..	6,432	6·29	404·53	First Choice of Melrose
103	Holland Lass 2nd of Berry	Flack and Sewell ..	Friesian	11,864	3·41	404·05	Sultan La Polka
104	Marjorie of Langley Park	Callery Bros. ..	Ayrshire	9,836	4·10	403·12	Royalty of Rythdale
105	Vanilla 8th of Melrose ..	A. Joshua ..	Jersey ..	7,753	5·17	402·85	Pretty Noble (imp.)
106	Waverly Lass 3rd of Melrose	W. Woodmason ..	,, ..	6,282	6·41	402·61	Handsome Boy 5th of Melrose
107	Molly 2nd of Clover Flat	W. J. Colman ..	,, ..	7,312	5·47	400·17	Maid of the Glen's Golden Carnation
108	Bolobek May	O. J. Syme ..	Friesian	11,910	3·36	399·81	Indulge Johanna Lad
109	Pearl of Willow Park ..	W. K. Atkinson ..	Shorthorn	10,404	3·83	398·69	Havelock of Darbalara
110	Trixie of Ever Green ..	H. S. Gibson ..	Ayrshire	8,770	4·54	398·40	General Gordon
111	Pidgeon of Kameruka ..	Alston Estate ..	Jersey ..	6,585	6·04	397·95	Silver King
112	Blanche Rose 10th ..	W. K. Atkinson ..	Shorthorn	10,617	3·74	397·07	Poplar Vale Prince 9th
113	Jenny Lind 9th of Melrose	W. Woodmason ..	Jersey ..	6,414	6·17	395·91	Pretty Noble (imp.)
114	Mountain Princess of Langley Park	Callery Bros. ..	Ayrshire	8,858	4·46	395·48	Bounie's Chief of Victoria Bank

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
115	Silver Bell of Kameruka	Alston Estate ..	Jersey ..	6,520	6·06	395·41	Silver King
116	Rarity 10th of Melrose	W. Woodmason ..	„ ..	6,346	6·22	394·85	Handsome Boy 5th of Melrose
117	Edelweiss of Springhurst	J. D. Read ..	„ ..	6,928	5·68	393·84	Fisher
118	Roseleaf of Langley Park	Callery Bros. ..	Ayrshire	8,676	4·54	393·84	Bonnie's Chief of Victoria Bank
119	Werribee Northwood Madeira 6th	P. Chirnside ..	Jersey ..	6,756	5·82	393·50	Northwood King
120	Morocco	Department of Agriculture	Red Poll	11,538	3·41	393·42	Ganymede
121	Molly 4th of Banyule ..	C. G. Lyon ..	Jersey ..	8,337	4·71	392·84	Starbright's Lord Twylish
122	Daisy 6th of Jerseyholm	T. Harvey ..	„ ..	7,194	5·45	392·31	Emperor
123	Merella 2nd of Yarra Brae	Mrs. E. M. Lennie	„ ..	6,652	5·90	392·22	Starbright Renard
124	Blossom 4th of Melrose	W. Woodmason ..	„ ..	7,359	5·31	391·17	Pretty Noble (imp.)
125	Shadow of Luscombe ..	Mrs. I. Beard ..	„ ..	7,266	5·37	390·36	Skim of Dunalister
126	Nemophila of Springhurst	J. D. Read ..	„ ..	6,683	5·83	389·59	Investigator of Melrose
127	Nellie of Craigneil ..	A. W. Jones and Son	Friesian	10,294	3·78	389·54	King Mercena
128	Dominion Proud Lassie	Department of Agriculture	„ ..	11,336	3·42	387·14	Woodcrest Jo
129	Bonnie 2nd of Tarnpirr	A. L. N. Walter ..	Jersey ..	5,778	6·70	386·87	Royal Rose's Choice
130	Creamy of Lesterfield ..	W. Fixter ..	„ ..	8,373	4·62	386·66	Lesterfield Boy
131	Collingwood's Beauty ..	Department of Agriculture	„ ..	6,015	6·40	384·98	Lady's Fox of Collingwood
132	Mona of Hillcrest ..	Leongatha High School	„ ..	9,119	4·22	384·97	Black Prince of Mt. Crawford
133	Dunalister Perree's Czarina	Clyne Bros. ..	„ ..	6,165	6·24	384·60	Perree's Duke
134	Ettie 5th of Banyule ..	C. G. Lyon ..	„ ..	7,925	4·85	384·28	Mabel's Chief (imp.)
135	Fuchsia 13th of Melrose	A. W. Jones and Son	„ ..	8,264	4·64	383·70	Lady of Melrose 2nd's Noble
136	Pico	Department of Agriculture	Red Poll	9,489	4·04	383·41	Belligerent
137	Dominion Iona ..	Flack and Sewell ..	Friesian	12,303	3·11	382·17	Woodcrest Jo
138	Joy of Struan Park ..	D. F. Griffiths ..	Ayrshire	8,107	4·71	381·76	General of Gowrie Park
139	Defender's Favourite of Boorene	A. A. Broad ..	Jersey ..	7,438	5·13	381·29	Fox's Nonpariel
140	Pearl of Burnbrae ..	Sadler Bros. ..	Ayrshire	8,975	4·24	380·68	Brae Lock
141	Namesake 2nd ..	T. Mesley ..	Jersey ..	7,726	4·92	379·95	Verbena's Pride
142	Vanilla 7th of Melrose ..	W. Woodmason ..	„ ..	7,171	5·30	379·07	Pretty Noble (imp.)
143	Dunalister Perree's Progress	D. Peter	„ ..	6,622	5·71	378·42	Perree's Duke
144	Jessie 20th of Melrose ..	W. Woodmason ..	„ ..	6,087	6·22	378·33	Handsome Boy 5th of Melrose
145	Pearl 5th of Holmwood	H. Luxton ..	„ ..	7,827	4·83	378·23	Audrey's Lord Twylish
146	Noorat Marguerite ..	Mrs. A. Black ..	„ ..	7,654	4·94	377·99	Obelisk
147	St. Albans Lady ..	A. W. Jones and Son	Friesian	9,289	4·07	377·92	Pearl's Prince of Brundee
148	Jenny Lind 13th of Melrose	R. H. Maher ..	Jersey ..	6,348	5·95	377·46	Golden Fern's Viscount (imp.)
149	Netherlana	Department of Agriculture	Red Poll	9,060	4·16	377·03	Melton Prince
150	Roma of Hillcrest ..	A. A. Broad ..	Jersey ..	8,723	4·32	376·53	Bell Boy of Hillcrest
151	Trixie of Medburn Grove	C. Bamford ..	Ayrshire	7,499	5·02	376·44	St. Elfred of Willow Grove
152	Dolly 4th of Glengowrie	J. R. Telford ..	„ ..	8,492	4·42	375·64	Bruce 2nd of Glengowrie
153	Morven Duchess 15th ..	Kerr Bros. ..	Shorthorn	9,811	3·81	374·49	Morven York Rose 10th
154	Hawthorn 5th of Banyule	C. G. Lyon ..	Jersey ..	7,162	5·22	373·96	Mabel's Chief (imp.)
155	Gladness of Struan Park	D. F. Griffiths ..	Ayrshire	8,475	4·40	372·97	Wallace of Gowrie Park
156	Dominion Cora ..	Flack and Sewell ..	Friesian	10,835	3·44	372·59	Oak de Kol
157	Lily 5th of Holmwood	C. G. Lyon ..	Jersey ..	6,838	5·45	372·39	Audrey's Lord Twylish
158	Dutch Girl 2nd of Berry	Flack and Sewell ..	Friesian	9,920	3·74	371·37	Sultan La Polka
159	Nightshade of Springhurst	J. D. Read ..	Jersey ..	8,095	4·58	371·12	Young Defiance
160	Jessie 12th of Melrose..	W. Woodmason ..	„ ..	6,335	5·86	370·65	Pretty Noble (imp.)
161	Dauphine of Springhurst	E. A. Denis ..	„ ..	6,406	5·72	369·97	Investigator of Melrose
162	Queen of Bellaire ..	W. J. Colman ..	„ ..	6,413	5·76	369·31	Fox Trot
163	Tiny of Tarnpirr ..	J. Hunter ..	„ ..	6,235	5·92	369·20	Morocco's Carnation Fox
164	Bolobek Dolly Gray ..	O. J. Syme ..	Friesian	11,071	3·33	368·54	Rhoda Prince of Rubicon
165	Pansie of Medburn Grove	C. Bamford ..	Ayrshire	9,259	3·98	368·43	Leo of Gleneira
166	Jennie de Kol ..	O. J. Syme ..	Friesian	10,571	3·48	368·00	Duplicate Posch
167	Morven Cressida ..	Kerr Bros. ..	Shorthorn	9,000	4·08	367·60	Manor York Rose
168	Marie of Bonshaw ..	P. J. Maloney ..	Jersey ..	8,015	4·58	367·31	Laddie 2nd of Banyule
169	Starleigh's Princess of Clover Flat	W. J. Colman ..	„ ..	7,093	5·17	367·06	Prince Noreen
170	Tongala Doreen ..	S. Russell ..	Friesian	10,249	3·58	366·96	
171	Tulip 5th of Bonshaw ..	Mrs. E. M. Lennie..	Jersey ..	8,148	4·49	365·95	Laddie 2nd of Banyule
172	Monovale Amethyst Paxton	Flack and Sewell ..	Friesian	8,355	4·13	365·44	Prince Pietje Paxton
173	Starbright of Lynroy ..	Mrs. E. M. Lennie..	Jersey ..	6,527	5·60	365·36	Island Butter King (imp.
174	Bolobek Anabell ..	O. J. Syme ..	Friesian	9,440	3·87	365·30	Indulge Johanna Lad
175	Postcard of Tarnpirr ..	A. L. N. Walter ..	Jersey ..	5,869	6·21	364·29	First Choice of Melrose

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
176	Beauty's Daffodil of Lesterfield	W. Fixter ..	Jersey ..	7,663	4·75	363·97	Lesterfield Handsome Boy
177	Werribee Starbright 8th	P. Chirnside ..	,, ..	7,704	4·72	363·75	Island Butter King (imp.)
178	Daisy Bell of Retreat ..	W. J. Muhlebach ..	Ayrshire	8,557	4·26	363·62	Musician of Willow Vale
179	Laura 12th of Melrose ..	R. H. Maher ..	Jersey ..	6,174	5·88	362·83	Golden Fern's Viscount
180	Morven Pansy 7th ..	Kerr Bros. ..	Shorthorn	8,978	4·04	362·76	Manor York Rose 1st
181	Bolobek Rhoda ..	O. J. Syme ..	Friesian	11,179	3·24	362·55	Rhoda Prince of Rubicon
182	Sweet Pansy 5th of Melrose	G. Rowe ..	Jersey ..	5,401	6·71	362·42	Handsome Boy 5th of Melrose
183	Golden Fern of Glen Iris	C. D. Lloyd ..	,, ..	5,991	6·05	362·38	Mabel's Chief (imp.)
184	Tarrawarra No. 16 ..	J. Carter ..	Friesian	8,562	4·21	360·73	Tarrawarra No. 3
185	Golden Fern of Glen Iris	C. D. Lloyd ..	Jersey ..	5,919	6·09	360·59	Mabel's Chief (imp.)
186	Blanchette 3rd ..	A. W. Jones and Son	,, ..	6,515	5·52	359·61	Garantie's Antimony
187	Bolobek Isabella ..	O. J. Syme ..	Friesian	11,754	3·06	359·31	Indulge Johanna Lad
188	Vanilla 5th of Melrose ..	W. Woodmason ..	Jersey ..	8,831	4·07	359·29	Wild Rover
189	Rarity 7th of Melrose ..	W. Woodmason ..	,, ..	7,510	4·76	357·61	Mystery's Son of Melrose
190	Holly Queen of Pentland 4th	F. G. Sadler ..	Shorthorn	9,008	3·96	356·31	13th Duke of Woodlands
191	Petunia of Glencairn ..	N. Gange ..	Ayrshire	8,998	3·96	355·88	Peacemaker of Glencairn
192	Rosebud of Tarnpirr ..	A. L. N. Walter ..	Jersey ..	6,228	5·71	355·87	Morocco's Carnation Fox
193	Primrose 2nd of Tarnpirr	Mrs. E. M. Lennie ..	,, ..	6,052	5·88	355·71	First Choice of Melrose
194	Phyllis of Ashby ..	Dickinson Bros. ..	Friesian	10,869	3·26	355·12	Pearl's Prince of Brundee
195	Clover of Springhurst ..	J. D. Read ..	Jersey ..	6,640	5·34	354·62	Brighton Cub
196	Silvermine 20th of Banyule	C. G. Lyon ..	,, ..	6,232	5·67	354·54	Mabel's Chief (imp.)
197	Jessie 11th of Ferntree Vale	J. Phillips ..	,, ..	8,486	4·18	354·23	Starbright Renard
198	Lassie Fowler 8th of Melrose	R. H. Maher ..	,, ..	5,730	6·18	354·16	Golden Fern's Viscount (imp.)
199	Noorat Grey Girl ..	Mrs. A. Black ..	,, ..	7,036	5·03	353·68	Obelisk
200	Maggie of Ashby ..	Dickinson Bros. ..	Friesian	10,197	3·47	353·11	Pearl's Prince of Brundee
201	Bountiful of La Motte ..	S. A. Johnson ..	Ayrshire	8,119	4·34	352·42	Lochinvar of Prior Park
202	Barbara of Seafield ..	J. Benallack ..	,, ..	7,261	4·85	352·15	Dunoon of Seafield
203	Maisie of Sparrovale ..	Geelong Harbour Trust	,, ..	7,996	4·39	351·03	Stuart of Gowrie Park
204	Jubilee Daffodil ..	Miss B. Reid ..	Jersey ..	7,326	4·78	350·39	Jubilee May 2nd's Prince
205	Chevy 12th of Melrose ..	J. Hunter ..	,, ..	5,635	6·22	350·32	Handsome Boy 5th of Melrose
206	Welcome of Tarnpirr ..	Alston Estate ..	,, ..	5,428	6·54	350·20	First Choice of Melrose
207	Mountain Mist of Kameruka	Miss B. Reid ..	,, ..	6,993	3·50	349·96	Jubilee May 2nd's Prince
208	May of Sparrovale ..	Geelong Harbour Trust	Ayrshire	8,439	4·14	349·77	Scottish King of Gowrie Park
209	Adora of Fernhill ..	J. R. Telford ..	,, ..	8,258	4·22	348·58	Glen Elgin's Ian
210	Jessie 21st of Melrose ..	W. Woodmason ..	Jersey ..	5,977	5·83	348·33	Handsome Boy 5th of Melrose
211	Foxglove 2nd of Tarnpirr	W. and G. Finn ..	,, ..	5,940	5·84	346·85	First Choice of Melrose
212	Bolobek Rose	A. W. Jones and Son	Friesian	9,840	3·54	346·20	Colantha Ponteac
213	Pride of Wattle Bank ..	A. Kirby ..	Ayrshire	7,819	4·42	345·58	Brownie of Gowrie Park
214	Fancy Queen of Ferndale	D. C. Miller ..	Jersey ..	7,219	4·78	345·15	Lord Grey
215	Bolobek Amy	O. J. Syme ..	Friesian	9,587	3·59	344·42	Rhoda Prince of Rubicon
216	Fay of Banyule ..	H. Perdriau ..	Ayrshire	8,765	3·93	344.36	Rational of Oakbank
217	Guinea Gold of Brookside	W. Tendeson ..	Jersey ..	7,650	4·48	343·01	Renard's Twylish
218	Werribee Northwood Attraction	A. W. Findlay ..	,, ..	6,235	5·48	341·49	Northwood King
219	Dunalister Perree's Tissue	D. Peter	,, ..	5,357	6·36	340·92	Perree's Duke
220	Jessie 15th of Melrose ..	W. Woodmason ..	,, ..	5,810	5·86	340·26	Pretty Noble (imp.)
221	Ontario	Department of Agriculture	Red Poll	8,807	3·86	340·06	Acton Dewstone (imp.)
222	Nestle of Gleneira ..	C. Lees	Ayrshire	7,518	4·51	339·24	Triumph of Gleneira
223	Surprise of Wooray! ..	Leongatha High School	Jersey ..	5,598	6·06	329·20	Prince's Glory
224	Beauty of Bonshaw ..	Mrs. E. M. Lennie ..	,, ..	6,466	5·24	339·05	Laddie 2nd of Banyule
225	Annie G. of Tarnpirr ..	Alston Estate ..	,, ..	5,889	5·75	338·84	First Choice of Melrose
226	Phoebe of Ashby ..	Dickinson Bros. ..	Friesian	9,852	3·44	338·46	Pearl's Prince of Brundee
227	Starlight of Wethersdane	C. Bamford ..	Ayrshire	9,229	3·66	337·91	Glen Elgin's Combine
228	Dominion Belle Corona	Department of Agriculture	Friesian	10,518	3·21	337·75	Oak de Kol Homestead Fobes
229	Peerless 20th of Melrose	R. H. Maher ..	Jersey ..	6,130	5·49	336·24	Golden Fern's Viscount (imp.)
230	Letetia 2nd of Somerville	H. Luxton ..	,, ..	6,534	5·15	336·19	Annette 2nd's Twylish
231	Valda's Queen of Somerville	W. and G. Finn ..	,, ..	7,364	4·56	336·07	Rochdale King
232	Beauty of Medburn Grove	C. Bamford ..	Ayrshire	7,727	4·33	335·22	St. Elfred of Willow Vale
233	Mystery 14th's Beauty of Lesterfield	A. W. Findlay ..	Jersey ..	6,407	5·23	325·09	Magnets Maitland

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
234	Philomel	T. Mesley ..	Jersey ..	6,646	5·02	334·55	Falcon
235	Cora 2nd of Havilah ..	J. Scott	,, ..	6,662	5·02	334·26	Silver Belle's Golden Lad
236	Rarity 11th of Melrose..	J. Hunter ..	,, ..	5,964	5·60	334·01	Handsome Boy 5th of Melrose
237	Fuchsia 12th of Melrose	C. J. Reid ..	,, ..	6,868	4·86	333·85	Pearl's Son of Melrose
238	Maitland's Petal 3rd of Havilah	J. Scott	,, ..	6,319	5·26	332·65	Silver Belle's Golden Lad
239	Lupin of Medburn Grove	C. Bamford ..	Ayrshire	8,536	3·89	332·10	St. Elfred of Willow Vale
240	Bolobek Jean ..	O. J. Syme ..	Friesian	9,539	3·48	331·68	Indulge Johanna Lad
241	Fox's Clementine 2nd ..	F. Bidgood ..	Jersey ..	6,058	5·45	330·17	Carnation's Fox
242	Lady 2nd of Bonshaw ..	F. Trevaskis ..	,, ..	6,829	4·68	329·91	Laddie 2nd of Banyule
243	Vanilla 11th of Melrose	W. Woodmason ..	,, ..	5,599	5·87	328·91	Handsome Boy 5th of Melrose
244	Jessie 22nd of Melrose ..	W. Woodmason ..	,, ..	5,288	6·20	327·93	Handsome Boy 5th of Melrose
245	Garenne 3rd of Warenda	Mrs. I. Beard ..	,, ..	5,890	5·57	327·81	Skim of Dunalister
246	Linda 2nd of Bonshaw	Mrs. E. M. Lennie ..	,, ..	6,771	4·83	327·68	Laddie 2nd of Banyule
247	Noorat Beauty ..	Mrs. A. Black ..	,, ..	7,232	4·53	327·42	Obelisk
248	Princess of Grangelea ..	A. A. Broad ..	,, ..	6,344	5·15	326·95	Kalimna's Fox
249	Melba	A. W. Jones and Son	Friesian	9,348	3·49	326·17	Pearl's Prince of Brundee
250	Little Queen ..	P. H. Lawrence ..	Jersey ..	6,160	5·28	325·46	Foxy Boy
251	Pearl 3rd of Holmwood..	Lyon and Kerr ..	,,	6,330	5·11	324·61	Audrey's Lord Twylish
252	Tongala Betty ..	S. Russell ..	Friesian	7,711	4·21	324·35	
253	Lenora Canary ..	Flack and Sewell ..	,,	8,086	4·01	324·07	Sir Canary Pietje
254	Marie of Tarnpirr ..	E. A. Denis ..	Jersey ..	5,437	5·96	324·03	First Choice of Melrose
255	Pearl of Friesland Park	O. J. Syme ..	Friesian	9,183	3·58	323·85	King of Dominoes
256	Annetta of View Point..	H. D. W. Canobio..	Ayrshire	8,252	3·92	323·80	Jimmie of View Point
257	Princess Ena	O. J. Syme ..	Friesian	9,470	3·41	322·99	Duplicate Posch
258	Treasure of Ben Kell ..	R. Ralston ..	Ayrshire	7,749	4·16	322·49	Girvan of Oakbank
259	Snowdrift of Gleneira ..	C. Lees	,, ..	7,712	4·18	322·13	Triumph of Gleneira
260	Flower 13th of Melrose..	E. A. Denis ..	Jersey ..	4,845	6·59	319·38	Handsome Boy 5th of Melrose
261	Belle of Sparrovale ..	Geelong Harbour Trust	Ayrshire	6,903	4·63	318·97	Stuart of Gowrie Park
262	Gladsome of Medburn Grove	C. Bamford ..	,, ..	7,835	4·07	318·78	Leo of Gleneira
263	Pendant	Warragul High School	Red Poll	8,310	3·83	318·26	Longford Major (imp.)
264	Ida Isaacs of Tregorland	J. F. Tuckey ..	Ayrshire	6,582	4·83	318·12	Isaac of Balvormie
265	Royal Heath of Gowrie Park	D. F. Griffiths ..	,, ..	8,914	3·56	317·74	Dr. Cranwell of Gowrie Park
266	Primrose of Sparrovale	Geelong Harbour Trust	,, ..	6,868	4·62	317·42	Scottish King of Gowrie Park
267	Jessie 16th of Melrose ..	Miss L. Robinson ..	Jersey ..	5,543	5·73	316·38	Handsome Boy 3rd of Melrose
268	Peeress 2nd of Flinders	McFarlane Bros. ..	Ayrshire	7,333	4·31	315·83	Rab of Oakbank
269	Dominion Homestead Maggie	Flack and Sewell ..	Friesian	9,744	3·24	315·67	Longbeach Primrose League
270	Morven Duchess 14th ..	Kerr Bros. ..	Shorthorn	8,766	3·60	315·47	Charming Duke
271	Oatlands Polly ..	J. Thorburn ..	Ayrshire	7,113	4·42	314·71	Captain Tasman
272	Birdseye	Department of Agriculture	Red Poll	6,357	4·95	314·55	Tabacum
273	Flashlight	Mrs. A. Black ..	Jersey ..	5,734	5·48	314·29	Golden Plum
274	Nancy 4th	Evans Bros. ..	Red Poll	8,656	3·63	313·84	Battery
275	Queenie of Willow Park	W. K. Atkinson ..	Shorthorn	7,774	4·03	313·38	Havelock of Darbalara
276	Lotina's Twylish of Roseneath	D. C. Miller ..	Jersey	6,247	5·01	313·12	Lotina's Noble of Oaklands
277	Dutch Girl of Berry ..	Flack and Sewell ..	Friesian	9,033	3·46	312·56	Duke of Amsterdam
278	Lillian of Willow Vale ..	W. Meredith ..	Ayrshire	7,287	4·28	311·75	Tarbolton of Oakbank
279	Bonnie of Glencairn ..	J. H. Rogers ..	,, ..	8,567	3·64	311·48	Zero of Rythdale
280	Violet's Queen of Dunachton	R. Hall	,,	8,322	3·74	311·16	Alpha of Oakvale
281	Countess of Byrnside ..	J. R. Telford ..	,, ..	7,471	4·16	310·90	Gleneira's Imperial
282	Silvermine of Inverleigh	A. H. Schier ..	,, ..	7,316	4·24	310·23	Marker of Balvormie
283	Marguerite of Glengowrie	A. H. Schier ..	,, ..	6,670	4·65	310·12	Orpheus of Glengowrie
284	Daffodil	T. H. Payne ..	Red Poll	6,570	4·72	309·95	Cubata
285	Thelma of View Point ..	Sadler Bros. ..	Ayrshire	7,983	3·88	309·76	Jimmie of View Point
286	Pentland's 16th Jessamine	S. H. Ebery ..	Shorthorn	6,976	4·42	308·22	43rd Earl of Pentland
287	Myrtle 2nd of Pine Grove	A. H. Schier ..	Ayrshire	7,513	4·10	307·99	Glen Keith of Pine Grove
288	Pearl of Ben Kell ..	R. Ralston ..	,, ..	7,658	4·02	307·96	Melville Duke
289	Beauty of Quarry Hills	H. Perdriau ..	,, ..	6,124	5·02	307·46	Jimmie of View Point
290	Blossom of Sparrovale..	Geelong Harbour Trust	,, ..	6,849	4·34	306·91	Stuart of Gowrie Park
291	Victoria Red Rose ..	Department of Agriculture	Red Poll	7,437	4·12	306·50	Red David

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
292	Belladonna of Springhurst	J. D. Read ..	Jersey ..	5,724	4·55	306·26	Attraction of Springhurst
293	Gingercake of Glen Iris	P. Chirnside ..	„ ..	5,296	5·77	305·70	Brown Chief
294	Butter Queen of Staghorn	F. Bidgood ..	„ ..	5,851	5·22	305·67	Island Butter King (imp.)
295	Lady Elector 2nd of Melrose	W. Woodmason ..	„ ..	5,144	5·93	305·23	Pretty Noble (imp.)
296	Jubilee Red Rose ..	Miss B. Reid ..	„ ..	5,807	5·25	304·78	Twylish's Maderia's Fox 2nd of Werribee
297	Keepsake of Tarnpirr ..	E. A. Denis ..	„ ..	6,265	4·86	304·35	First Choice of Melrose
298	Red Madge of Gleneira..	C. Bamford ..	Ayrshire	7,124	4·26	303·45	Eclipse of Gleneira
299	Doris of Glencourt ..	H. J. Munro ..	„ ..	7,192	4·22	303·18	Linguist of Oakbank
300	Norah's Pearl.. ..	A. W. Jones and Son	Friesian	9,347	3·23	301·79	Pearl's Prince of Brundee
301	Jean of Glengowrie ..	A. H. Schier ..	Ayrshire	7,940	3·80	301·53	Ada's Jamie of Glengowrie
302	Fox's Golden Cream ..	P. Chirnside ..	Jersey ..	6,296	4·78	301·26	Carnation Fox
303	Hope 5th	C. Falkenberg ..	„ ..	5,653	5·31	299·98	Twylish's Pride
304	Maud 2nd of Holly Green	J. G. Lobb ..	Ayrshire	6,485	4·62	299·87	Brevet of Oakbank
305	Flower of Sparrovale ..	Geelong Harbour Trust	„ ..	6,457	4·65	299·82	Glen Elgin's Rover
306	Gladness 2nd of Struan Park	D. F. Griffiths ..	„ ..	7,399	4·05	299·38	Bonnie Prince of Gowrie Park
307	Hookah	Department of Agriculture	Red Poll	7,474	3·99	298·54	Longford Major (imp.)
308	Cora 2nd of Havilah ..	J. Scott	Jersey ..	6,082	4·91	298·48	Silver Belle's Golden Lad
309	Morven Pansy 8th ..	Kerr Bros. ..	Shorthorn	7,471	3.99	298·41	Charming Duke 67th
310	Creamy 2nd of Holmwood	Miss L. Robinson ..	Jersey ..	6,423	4·66	298·24	Pearl's Prince of Holmwood
311	Morven Lizzie 10th ..	Kerr Bros. ..	Shorthorn	8,128	3·67	298·17	Morven York Rose 10th
312	Daisy of Sparrovale ..	Geelong Harbour Trust	Ayrshire	6,556	4·55	298·00	Scottish King of Gowrie Park
313	Curiosity of Holmwood	W. and G. Finn ..	Jersey ..	5,551	5·37	297·84	Pearl's Prince of Holmwood
314	Kestral of Tregorland ..	J. F. Tuckey ..	Ayrshire	7,102	4·19	297·33	Havelock of Gowrie Park
315	Dinah of Mapleton ..	G. A. Kent ..	„ ..	7,158	4·15	297·07	Hero of Rythdale
316	Milkmaid of Holly Green	H. L. Webb ..	Ayrshire	7,959	3·73	297·02	Marana of Fernhill
317	Maitlands Duchess of Lesterfield	A. W. Findlay ..	Jersey	6,847	4·34	296·98	Magnet's Maitland
318	Trefoil of Springhurst ..	J. D. Read ..	„ ..	5,405	5·48	296·35	Young Defiance
319	Orinoco	Warragul High School	Red Poll	7,410	4·00	296·34	Honingham Alake (imp.)
320	Vanity of Warrook ..	Cockbill and Gibbs	Ayrshire	7,419	3·98	295·78	Alice's Jamie of Oakbank
321	Lady Em of Ever Green	H. S. Gibson ..	„ ..	7,592	3·89	295·42	General Gordon
322	St. Albans Lily ..	S. Russell ..	Friesian	8,817	3·33	295·01	Burdett's Prince
323	Tarrawarra No. 7 ..	J. Carter ..	„ ..	7,719	3.82	294·98	Tarrawarra No. 2
324	Doris of Glencourt ..	H. J. Munro ..	Ayrshire	7,066	4·17	294·35	Linguist of Oakbank
325	Meadow Sweet of Sparrovale	Geelong Harbour Trust	„ ..	6,684	4·40	294·19	Jock of Sparrovale
326	Daisy of Bundara ..	J. H. Rogers ..	„ ..	6,919	4·25	294·00	Brown Prince of Bundara
327	Jessie's Pride of Bundara	H. W. D. Canobio..	„ ..	8,038	3·66	293·98	Isabel's Pride of Gleneira
328	Idea of Tregorland ..	J. F. Tuckey ..	„ ..	6,248	4·70	293·91	Havelock of Gowrie Park
329	Dahlia of Retreat ..	M. Galbraith ..	„ ..	6,390	4·60	293·68	Anthony of Gleneira
330	Sadie of Burnside ..	J. H. Rogers ..	„ ..	8,149	3·60	293·57	Zero of Rythdale
331	Pansy of Colac ..	C. Falkenberg ..	Jersey ..	6,696	4·38	293·56	Handsome Progress
332	Leila of Warrook ..	Cockbill and Gibbs	Ayrshire	6,435	4·55	293·04	Minerva's Jamie of Warrook
333	Princess Thyra 4th of Strachan	W. C. Cayley ..	„ ..	8,250	3·55	292·92	Jamie of Strachan
334	Alice of Woorayl ..	Leongatha High School	Jersey ..	4,895	5·98	292·53	Noble Empire
335	Mona's Pearl	Mrs. A. Black ..	„ ..	6,063	4·82	292·27	Prince Nita
336	Duchess of Ever Green..	H. S. Gibson ..	Ayrshire	7,620	3·83	291·89	General Gordon
337	Maitlands Floss ..	A. W. Findlay ..	Jersey ..	5,816	5·03	291·83	Magnet's Maitland
338	Gingerbread of Glen Iris	C. D. Lloyd ..	„ ..	5,323	5·48	291·57	Mabel's Chief
339	Jubilee of Somerset ..	A. E. Batson ..	„ ..	5,010	5·81	291·09	Discoverer
340	Marie of Tarnpirr ..	Mrs. E. Sims ..	„ ..	4,875	5·95	290·19	First Choice of Melrose
341	Flora of Sparrovale ..	Geelong Harbour Trust	Ayrshire	6,271	4·62	289·77	Scottish King of Gowrie Park
342	Tongala Maggie ..	S. Russell ..	Friesian	7,256	3·99	289·77	
343	Peerless 18th of Melrose	W. Woodmason ..	Jersey ..	5,622	5·15	289·67	Golden Fern's Viscount (imp.
344	Morven Lizzie 7th ..	Kerr Bros. ..	Shorthorn	7,204	4·02	289·67	Manor York Rose
345	My Hope of Kameruka	A. E. Denis ..	Jersey	6,206	4·67	289·66	Twylish's Pride
346	Kyora Merry Mike's Mayflower	Miss L. Robinson ..	„ ..	5,813	4·98	289·20	Merry Mike
347	Daisy of Bignold ..	F. W. Beischer ..	„ ..	6,151	4·69	288·73	Beauty 3rd's Fox
348	Heather of Struan Park	D. F. Griffiths ..	Ayrshire	6,305	4·57	288·13	Bonnie Prince of Gowrie Park
349	Silvermine of Brookside	W. Tendeson ..	Jersey ..	5,439	5·29	287·56	Renard Twylish
350	Idyll's Ideal	Alston Estate ..	„ ..	5,945	4·84	287·48	Starbright's 5th Twylish
351	Tulip 4th of Bonshaw ..	Mrs. E. M. Lennie..	„ ..	5,875	4·89	287·47	The Pilot of Tarnpirr
352	Lilac of Tarnpirr ..	A. W. Jones and Son	„ ..	5,970	4·81	287·37	Ilford

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
353	Royal Sun Ray ..	A. E. Denis ..	Jersey ..	6,427	4·47	287·05	Peerless Lord Twylish
354	Cowslip of Devon Park	J. W. Cochrane ..	Ayrshire	5,919	4·84	286·88	Sultan of Devon Park
355	Jessie of Willowvale	W. J. McKernan ..	,, ..	6,082	4·71	286·16	Tarbolton of Oakbank
356	Ada of Rythdale Park ..	J. W. Cochrane ..	,, ..	7,299	3·91	285·65	Leonard of Rythdale Park
357	La Charme	T. Mesley ..	Jersey ..	5,214	5·47	285·34	Skim of Dunalister
358	Cherry 5th	W. K. Atkinson ..	Shorthorn	7,608	3·73	284·02	White Clinker
359	Gratis	T. H. Payne ..	Red Poll	6,799	4·17	283·80	Acton Ajax (imp.)
360	Flossie of Kelburn ..	A. Robertson ..	Jersey ..	4,548	6·22	282·92	Lesterfield Boy
361	Bercham of Berry ..	Flack and Sewell ..	Friesian	8,900	3·17	282·53	Obbee 2nd
362	Beryl of Gleneira ..	McFarlane Bros. ..	Ayrshire	6,596	4·28	282·27	Majestic of Oakbank
363	Annette 6th of King's Vale	A. W. Findlay ..	Jersey ..	5,501	5·13	282·23	Carnation's Fancy Northwood King
364	Werribee Northern Larkspur 3rd	A. W. Findlay ..	,, ..	4,998	5·64	282·07	Island Butter King (imp.)
365	Lady Marge of Ferndale	A. E. Batson ..	,, ..	5,183	5·44	281·80	May's Larkspur's Lord Twylish
366	Annette 2nd of King's Vale	F. W. Beischer ..	,, ..	5,730	4·91	281·35	Victim's Defiance
367	Rachel of Gowrie Park..	D. F. Griffiths ..	Ayrshire	7,065	3·97	280·92	Wallace of Gowrie Park
368	Lucy of Staghorn ..	F. Bidgood ..	Jersey ..	6,001	4·68	280·75	Favourite's Noble
369	Geranium of Langley Park	Callery Bros. ..	Ayrshire	6,617	4·24	280·52	Bonnie's Chief of Victoria Bank
370	Beatrice of Sparrovale	Geelong Harbour Trust	,, ..	7,188	3·90	280·11	Stuart of Gowrie Park
371	Harp	Lyon and Kerr ..	Jersey ..	5,234	5·35	279·90	Noble Lord (imp.)
372	Morven Queenie 10th ..	Kerr Bros. ..	Shorthorn	7,291	3·83	279·13	Charming Duke 27th
373	Ryebread of Glen Iris ..	C. D. Lloyd ..	Jersey ..	5,480	5·09	278·80	Mabel's Chief
374	Boronia 2nd of Pine Grove	A. H. Schier ..	Ayrshire	5,727	4·86	278·52	Glen Keith of Pine Grove
375	Lily 5th of Belwell ..	G. Vallence ..	,, ..	6,837	4·05	277·90	Solway of Seafield
376	Queen Bee of Hill View..	Mrs. C. O'Donoghue	,, ..	6,405	4·34	277·72	Majestic of Drayton
377	Rosena 3rd	S. T. Algie ..	Shorthorn	7,064	3·93	277·72	43rd Earl of Pentland
378	Laranago	Warragul High School	Red Poll	6,620	4·19	277·71	Nicotine
379	Tulip of Medburn Grove	W. T. Cullen ..	Ayrshire	7,615	3·64	277·64	St. Elfred of Willow Vale
380	Myrtle of Sparrovale ..	Geelong Harbour Trust	,, ..	5,881	4·72	277·63	Scottish Chief of Sparrovale
381	Dolichos of Springhurst	R. J. Henry ..	Jersey	5,995	4·63	277·47	Brighton Cub
382	Fairlie of Brunbrae ..	Sadler Bros. ..	Ayrshire	6,342	4·37	276·90	Brae Loch
383	Primrose 2nd of Bonshaw	Mrs. E. M. Lennie	Jersey	5,099	5·43	276·88	The Pilot of Tarnpirr
384	Narcissa of Blackwood Park	H. L. Webb ..	Ayrshire	6,730	4·11	276·85	Sportsman of Willow Vale
385	Ida Brown of Balvormie	J. F. Tuckey ..	,, ..	6,274	4·41	276·74	Ada's Raglan of Balvormie
386	Belle A	R. Faragher ..	Jersey	4,688	5·90	276·41	Bell Boy of Hillcrest
387	Lady Gray 6th of St. Albans	A. E. Batson ..	,, ..	4,656	5·93	276·26	Black Fox of St. Albans
388	Edith of Golden Vein ..	W. McIvor ..	Ayrshire	5,458	5·06	276·23	Sergeant of Golden Vein
389	Purest of Roxburgh ..	T. Douglas ..	,,	6,887	4·00	275·64	Glen Elgin's Grand Duke
390	Mauve Lilac of Kameruka	Miss B. Reid ..	Jersey	1,757	5·79	275·54	Ironmaster (imp.)
391	Irene of Banyule ..	W. C. Cayley ..	Ayrshire	6,888	4·00	275·51	Duke of Chatsworth
392	Laurie 2nd of Roseneath	W. J. Colman ..	Jersey ..	4,990	5·52	275·21	Dunalister's Noble
393	Dot 3rd of Belwell ..	G. Vallence ..	Ayrshire	7,407	3·70	274·30	Solway of Seafield
394	Melba of Sparrovale ..	Geelong Harbour Trust	,, ..	6,366	4·30	273·84	Scottish King of Gowrie Park
395	Snowflake of Rythdale..	Callery Bros. ..	,, ..	6,931	3·95	273·40	Isabel's Prince of Gleneira
396	Marigold of Retreat ..	M. Galbraith ..	,, ..	6,148	4·44	273·04	Anthony of Gleneira
397	Morven Ruby ..	Kerr Bros. ..	Shorthorn	7,359	3·71	272·77	Manor York Rose
398	Glenida	A. Joshua ..	Jersey ..	5,797	4·71	272·76	Southern King 2nd
399	Bonnie Jean of Langley Park	Callery Bros. ..	Ayrshire	5,927	4·58	272·75	Bonnie's Chief of Victoria Bank
400	Laurel of Burnbrae ..	Sadler Bros. ..	,, ..	6,954	3·92	272·67	Adam of Coolangatta
401	Annetta of View Point..	H. W. D. Canobio..	,, ..	7,146	3·81	272·46	Jimmie of View Point
402	Violet of Retreat ..	W. Meredith ..	,, ..	6,960	3·90	271·78	Musician of Willow Vale
403	Ella of Ellerslie ..	J. Rogers ..	,, ..	7,083	3·83	271·18	Hero of Rythdale
404	Duchess of Sparrovale ..	Geelong Harbour Trust	,, ..	7,184	3·77	270·94	Stuart of Gowrie Park
405	Trixie of Colac ..	C. Falkenberg ..	Jersey	4,867	5·56	270·83	Handsome Progress
406	Gladiana of La Trobe ..	Sale High School ..	Ayrshire	5,618	4·81	270·41	Darnley of Gowrie Park
407	Maitland's Canary of Lesterfield	A. W. Findlay ..	Jersey ..	5,023	5·38	270·32	Magnet's Maitland
408	Rosella 2nd of King's Vale	S. Earle	,,	5,030	5·37	270·02	Canary's Lad 8th
409	Tongala Pauline ..	S. Russell ..	Friesian	7,058	3·82	269·95	
410	Alma of Langley Park ..	Callery Bros. ..	Ayrshire	7,155	3·75	269·55	Bonnie's Chief of Victoria Bank
411	Dime of Riccarton ..	W. T. Cullen ..	,, ..	5,422	4·96	269·15	White Prince of Gleneira
412	Docy of Riccarton ..	W. T. Cullen ..	,, ..	7,111	3·78	269·12	White Prince of Gleneira

COWS OVER 4 YEARS OF AGE OR ON THIRD LACTATION PERIOD—250 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
413	Red Pet	F. G. Sadler	Shorthorn	6,443	4·18	269·12	Royal Heir 7th
414	Chrissy 2nd of Rathlyn	M. Galbraith	Ayrshire	5,824	4·60	267·71	Anither of Oakbank
415	Gladys of Ellerslie	Sale High School	,,	5,979	4·47	267·56	Young Field Marshal
416	Greta of Hill View	Mrs. C. O'Donoghue	,,	6,506	4·09	266·03	Majestic of Drayton
417	Toronto	Department of Agriculture	Red Poll	6,160	4·32	265·97	Belligerent
418	Cutty	Department of Agriculture	,,	5,910	4·50	265·90	Nicotine
419	Lady Gray 8th of St. Albans	A. W. Jones and Son	Jersey	5,917	4·49	265·82	Navigator
420	Sunny 2nd of Gleneira	C. Lees	Ayrshire	5,685	4·67	265.44	Prince Kyle of Gleneira
421	Lady G. of Banyule	H. Perdriau	,,	6,592	4·02	265·08	Scotty of Numba
422	Lady Grey 1st of St. Albans	A. W. Jones and Son	Jersey	4,353	6·08	264·80	Garanties Antimony
423	White Stockings 4th	C. D. Lloyd	,,	5,986	4·42	264·73	Cowslip's Golden Noble
424	Goodness of Roxburgh	J. A. Lang	Ayrshire	6,697	3·95	264·38	Glen Elgin's Grand Duke
425	Kyora Defender May 3rd	Miss L. Robinson	Jersey	4,513	5·83	262·96	Lotinas' Defender of Kyora
426	Primrose of Wethersdane	H. D. W. Canobio	Ayrshire	6,600	3·98	262·79	His Majesty of Wethersdane
427	Celia of Burnbrae	Sadler Bros.	,,	6,518	4·02	262·23	Braeloch
428	Greta of Burnbrae	Sadler Bros.	,,	6,725	3·90	262·17	Laura's Laird of Gowrie Park
429	Boronia of Retreat	W. T. Cullen	,,	6,558	3·99	261·98	Anthony of Gleneira
430	Sylvia of Burnside	Cockbill and Gibbs	,,	6,988	3·74	261·41	Ventry of Seafield
431	Nora of Gowrie Park	D. F. Griffiths	,,	6,166	4·24	261·41	Wallace of Gowrie Park
432	Rye Bread of Glen Iris	C. D. Lloyd	Jersey	5,150	5·06	260·61	Mabel's Chief
433	Lizzie 2nd of Warrook	W. Henderson	Ayrshire	6,335	4·11	260·39	Future's Conservative
434	Bramble	Department of Agriculture	Red Poll	7,153	3·63	259·90	Belligerent
435	Snowberry of Warradale	C. Lees	Ayrshire	6,277	4·13	259·38	Paddy of Warradale
436	Nannie 2nd of Burnside	Cockbill and Gibbs	,,	6,607	3·93	259·35	Zero of Rythdale
437	Pacifica	Department of Agriculture	Red Poll	7,427	3·49	259·34	Acton Dewstone (imp.)
438	Phyllis of Hillcrest	Mrs. E. M. Lennie	Jersey	5,920	4·38	259·25	Black Prince of Mt. Crawford
439	Larkspur 2nd	Evans Bros.	Red Poll	6,478	4·00	259·21	Redman
440	Perree's of St. Albans	T. R. Findlay	Jersey	4,925	5·25	258·37	Sweet Fox 2nd of St. Albans
441	Golden Betty	Miss L. Robinson	,,	6,054	4·26	257·98	Lotina Larkspur Twylish
442	Bessie of Roxburgh	W. T. Cullen	Ayrshire	6,144	4·20	257·74	Gallant Duke of Roxburgh
443	Rose Royal of Langley Park	Callery Bros.	,,	6,473	3·82	257·19	Royalty of Rythdale
444	Princess of Colac	C. Falkenberg	Jersey	5,259	4·88	256·77	Irrewarra Duke
445	Countess of Ashby	G. A. Waite	Friesian	7,792	3·29	256·26	Pearl's Prince of Brundee
446	Sheila 5th	Mrs. A. Black	Jersey	5,209	4·92	256·24	Rufus
447	Anthem (imp.)	Miss L. Robinson	,,	5,221	4·90	256·12	Bright Prince
448	Fashion of Warrook	Cockbill and Gibbs	Ayrshire	5,684	4·49	255·96	Minerva's Jamie of Warrook
449	Bolobek Joan	J. Wills	Friesian	8,502	3·01	255·83	Indulge Johanna Lad
450	Elsa of Willow Vale	W. Meredith	Ayrshire	5,268	4·85	255·75	Tarbolton of Oakbank
451	Greatness of Roxburgh	T. Douglas	,,	6,343	4·03	255·69	Glen Elgin's Grand Duke
452	Ada of Wattlebank	A. Kirby	,,	5,731	4·45	255·11	Brownie of Gowrie Park
453	Violet 4th	Evans Bros.	Red Poll	6,544	3·90	255·03	Boicum
454	Graceful of Roxburgh	T. Douglas	Ayrshire	5,114	4·98	254·89	Jock of Roxburgh
455	Kipsie of Tregorland	J. F. Tuckey	,,	5,957	4·28	254·76	Havelock of Gowrie Park
456	Scotia	Mrs. M. E. Carroll	Red Poll	7,089	3·59	254·28	Nicotine
457	Tilly Lantry 2nd of Warenda	P. H. Lawrence	Jersey	4,454	5·71	254·26	Jessie's Handsome Boy
458	Nellie of La Trobe	Sale High School	Ayrshire	6,010	4·23	254·20	Adella's Jamie of Raith
459	Chance	T. H. Payne	Red Poll	6,323	4·01	253·65	Honingham Alake 3rd (imp.)
460	Peggy 3rd of Summerhill	C. G. Newton	Ayrshire	6,191	4·01	253·16	Anither of Golden Vein
461	Rosetta of Carracoorte	W. Henderson	,,	5,817	4·35	253·14	Fritz of Rythdale
462	Cambria	Mrs. M. E. Carroll	Red Poll	6,220	4·06	252·54	Nicotine
463	Chance	T. H. Payne	,,	6,368	3·96	252·06	Honingham Alake 3rd (imp.)
464	Queen of Golden Vein	J. W. Cochrane	Ayrshire	6,609	3·81	251·82	Fossiker of Golden Vein
465	Roan Ada 4th	F. G. Sadler	Shorthorn	7,275	3·45	251·03	43rd Earl of Pentland
466	Nora 3rd of Gleneira	C. Lees	Ayrshire	5,342	4·70	251·00	Jock of Gowan Bank
467	Flora of Roseneath	R. Goodman	,,	5,769	4·35	250·75	Norma's Progress
468	Noble Coquette	Miss B. Reid	Jersey	4,639	5·40	250·73	Castor's Premier
469	Bluebell 2nd of Werribee	F. Bidgood	,,	4,731	5·30	250·73	Northwood King
470	Lady Thenca Alcarta Van Racelands	Flack and Sewell	Friesian	7,885	3·18	250·62	King Alcartra Rozines Fayne
471	Morven Cressida 2nd	Kerr Bros.	Shorthorn	6,201	4·03	250·10	Charming Duke 27th

Cows under 4 Years of Age—200 lbs. Standard.

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
1	Empress of Jerseyholm	T. Harvey ..	Jersey ..	8,952	5·86	524·44	Emperor
2	Gold Bell of Methven ..	C. Deverell ..	,, ..	10,995	4·60	516·22	Bloodshot of Tarnpirr
3	Daffodil Mercena ..	A.W. Jones and Son	Friesian	12,917	3·75	484·22	King Mercena
4	Cherry of Willow Park..	W. K. Atkinson ..	Shorthorn	12,017	3·94	474·06	Havelock of Darbalara
5	Buttermaid 2nd ..	A. W. Jones and Son	Friesian	11,287	3·92	441·92	King Mercena
6	Jessie 24th of Melrose ..	W. Woodmason ..	Jersey ..	7,251	5·84	423·74	Golden Fern'sViscount (imp.)
7	Queen Curly	A. W. Jones and Son	Friesian	11,985	3·52	421·69	King Mercena
8	Hibiscus of Springhurst	H. Luxton ..	Jersey'..	8,278	5·03	416·47	Petain
9	Monavale Catriona Paxton	Flack and Sewell ..	Friesian	11,846	3·48	412·49	Prince Pietje Paxton
10	Cordyline Inka de Kol	A. W. Jones and Son	,, ..	10,153	3·94	400·81	Cordyline Colantha Hero
11	Grevillea of Springhurst	H. Luxton ..	Jersey ..	6,806	5·87	399·27	Attraction of Springhurst
12	Bonnie of Belgonia ..	P. J. Maloney ..	,, ..	7,769	5·14	399·22	Butterlad of Bonshaw
13	Romneya of Springhurst	J. D. Read ..	,, ..	7,750	5·08	394·01	Petain
14	Lucy Grey of Colac ..	T. R. Findlay ..	,, ..	8,113	4·80	389·47	Lady Grey 4th's Fox
15	Monovale Juno Paxton	J. Platfuss ..	Friesian	11,913	3·26	387·92	Prince Pietje Paxton
16	Tea Rose of Tarnpirr ..	Mrs. E. M. Lennie..	Jersey ..	6,213	6·22	387·66	Treasure of Tarnpirr
17	Blanche of Willow Park	W. K. Atkinson ..	Shorthorn	9,460	4·08	385·74	Havelock of Darbalara
18	Treasure of Medburn Grove	C. Bamford ..	Ayrshire	8,478	4·54	385·26	St. Elfred of Willow Vale
19	Adela of Woodstock Grange	H. D. W. Canobio..	,, ..	8,652	4·44	384·53	Combine of Glengowrie
20	Jessie 11th of Ferntree Vale	J. Phillips ..	Jersey	8,616	4·46	383·87	Starbright Renard
21	Plumbago of Springhurst	J. D. Read ..	,, ..	7,694	4·98	382·51	Petain
22	Mayflower of Sparrovale	Geelong Harbour Trust	Ayrshire	8,357	4·55	380·03	Jamie of Sparrovale
23	Bertha of Winslade ..	C. Lees ..	,,	8,316	4·56	379·23	Bowler of Seafield
24	Bolobek Annie ..	O. J. Syme ..	Friesian	10,270	3·68	377·92	Rhoda Prince Rubicon
25	Ina of Craigneil ..	A. W. Jones and Son	,, ..	10,867	3·47	376·97	King Mercena
26	Bolobek Blue Bell ..	O. J. Syme ..	,, ..	11,293	3·32	374·84	Johanna Lad
27	Phyllis 2nd of Warenda	T. Mesley ..	Jersey ..	7,411	5·01	373·46	Jessie's Handsome Boy
28	Trefoil 2nd of Springhurst	J. D. Read ..	,, ..	6,644	5·61	372·63	Attraction of Spinghurst
29	Valdas Belle of Somerville	H. Luxton ..	,, ..	6,018	6·17	371·80	Daphne's Prince of Somerville
30	Graceful Countess 2nd of Lesterfield	P. Chirnside	,, ..	5,863	6·30	369·45	Quality 6th's Son of Melrose
31	Gaiety Girl 10th of Melrose	W. Woodmason ..	,, ..	5,940	6·21	368·70	Golden Fern'sViscount (imp.)
32	Blush of Willow Park ..	W. K. Atkinson ..	Shorthorn	8,915	4·12	367·62	Havelock of Darbalara
33	Clover of Saranac ..	R. Faragher ..	Jersey ..	5,426	6·71	364·06	Lord Richmond
34	Waituki Princess Aleisha	J. Carter ..	Friesian	8,829	4·12	363·72	Royal Prince Pietertje de Kol
35	Tiny of Meadowvale ..	W. H. Atherton ..	Jersey ..	5,665	6·37	360·95	Mythics Choice of Tarnpirr
36	Tulip 2nd of Meridale ..	Finn Bros. ..	,, ..	6,915	5·18	358·45	Dinah's Model of Kings Vale
37	Lily of Craigneil ..	A. W. Jones and Son	Friesian	9,312	3·83	356·93	Canterbury Statesman
38	Marguerite of Springhurst	J. D. Read ..	Jersey ..	6,239	5·71	356·56	Petain
39	Flower 14th of Melrose..	A. L. N. Walter ..	,, ..	6,099	5·84	356·40	Golden Fern'sViscount (imp.)
40	Linda of Medburn Grove	C. Bamford ..	Ayrshire	9,059	3·92	355·47	Lord Harry
41	Dahlia of Springhurst ..	J. D. Read ..	Jersey ..	5,660	6·27	354·90	Petain
42	Buttercup of Glenmore	W. Meredith ..	Ayrshire	9,318	3·80	354·37	Lavendo of Glencairn
43	Alvie of Roseleigh ..	G. Gange ..	,, ..	8,023	4·41	353·54	Burleigh of Gowrie Park
44	Bolobek Janet ..	J. Wills	Friesian	9,778	3·58	350·40	Rhoda Prince of Rubicon
45	Melilot of Springhurst ..	J. D. Read ..	Jersey ..	6,412	5·46	350·39	Petain
46	May Queen of Brookside	W. Tendeson ..	,, ..	8,026	4·36	349·94	Reyna.d's Twylish
47	Stately of Craigneil ..	A. W. Jones and Son	Friesian	10,294	3·40	349·59	Canterbury Statesman
48	Bolobek Jessie ..	O. J. Syme ..	,, ..	9,433	3·71	349·40	Rhoda Prince of Rubicon
49	Boronia of Woodstock Grange	H. D. W. Canobio	Ayrshire	7,359	4·74	349·00	Combine of Glengowrie
50	Keepsake of Warenda ..	T. Mesley ..	Jersey ..	5,593	6·24	348·86	Jessie's Handsome Boy
51	Biddy of Kelburn ..	Mrs. I. Beard ..	,, ..	6,612	5·27	348·78	Music 3rd's Son of Melrose
52	Neat Lady of Springvale	R. C. Campbell ..	,, ..	5,995	5·81	348·31	Admiral
53	Joy of Tarnpirr ..	F. Trevaskis ..	,, ..	5,636	6·17	347·58	My Queen's Choice of Tarnpirr
54	Highland Fling ..	Warragul High School	Red Poll	8,790	3·93	346·09	Victoria Flight Commander
55	Parrot of Glenwood ..	W. Tendeson ..	Jersey ..	6,508	5·32	346·06	Carrie's 5th Noble of Melrose
56	Countess 2nd of Springhurst	J. D. Read ..	,, ..	6,398	5·40	345·23	Attraction of Springhurst
57	Velveteen 4th of Banyule	Lyon and Kerr ..	,, ..	6,743	5·11	344·88	Audrey's Lord Twylish
58	Milkmaid of Staghorn ..	F. Bidgood ..	,, ..	6,177	5·52	341·26	Favourite's Noble
59	War Wings	Department of Agriculture	Red Poll	8,560	3·91	338·89	Longford Maior (imp.)
60	Lady Patty of Ferndale	W. M. Vale ..	Jersey ..	6,377	5·30	338·12	Lord Grey
61	Cantata of Banyule ..	Lyon and Kerr ..	,, ..	6,747	5·32	337·84	Audrey's Lord Twylish
62	Lady Grey 11th of St. Albans .	H. Luxton ..	,, ..	6,113	5·52	337·32	Brighton King 8th

COWS UNDER 4 YEARS OF AGE—200 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
63	Orange Blossom of Tarnpirr	Alston Estate ..	Jersey ..	6,924	4·85	336·14	My Queen's Choice of Tarnpirr
64	Regina of Tarnpirr ..	Alston Estate ..	,, ..	5,440	6·18	336·14	Amy's Choice of Tarnpirr
65	Trixie of Medburn Grove	C. Bamford ..	Ayrshire	6,683	5·02	335·54	St. Elfred of Willowvale
66	Mezzo of Banyule ..	Lyon and Kerr ..	Jersey ..	5,896	5·66	333·92	Audrey's Lord Twylish
67	Lady Pirie	J. T. Tweddle ..	Friesian	10,192	3·26	332·46	Springfield Champion
68	Fuchsia of Springhurst..	E. A. Denis ..	Jersey ..	6,381	5·19	331·42	Attraction of Springhurst
69	Kitty 2nd of Somerset	A. E. Batson ..	,, ..	4,816	6·72	325·44	Lord Grey 2nd's Golden Spark
70	Gold Lass of Brookside	W. Tendeson ..	,, ..	6,524	4·98	324·59	Reynard's Twylish
71	Queen's Princess of Clover Flat	F. Raggatt ..	,, ..	7,152	4·52	323·14	Prince Noreen
72	Bolobek Edith ..	O. J. Syme ..	Friesian	8,545	3·77	322·45	Johanna Lad
73	Bluebell of Strathbow ..	F. Raggatt ..	Jersey ..	5,891	5·45	321·17	Mac of Tarnpirr
74	Lady Grey 11th of St. Albans	A. W. Jones and Son	,, ..	5,867	5·47	321·10	Lady Grey 2nd's Golden Spark
75	Rosella 8th of Kingsvale	J. Anderson, junr...	,, ..	6,165	5·21	320·92	Carnation's Fancy Northwood King
76	Topsy of Evergreen ..	H. S. Gibson ..	Ayrshire	7,401	4·47	320·51	Luminous of Drayton
77	Gowan of Sparrovale ..	Geelong Harbour Trust	,, ..	6,588	4·81	317·05	Jamie of Sparrovale
78	Pansy 6th of Ferntree Vale	E. A. Denis ..	Jersey ..	5,698	5·56	315·56	Starbright Renard
79	Bloom of Banyule ..	W. C. Cayley ..	Ayrshire	7,467	4·22	315·19	Duke of Chatsworth
80	Victoria Dutch Belle ..	Department of Agriculture	Friesian	8,768	3·58	313·53	Dominion Domino Dutch Boy
81	Domino Fobes of Yarra Brae	Flack and Sewell ..	,, ..	9,527	3·27	311·95	Dominion Domino Dutch Boy
82	Starleigh of Strathbow..	F. Raggatt ..	Jersey ..	5,528	5·64	311·81	Mac of Tarnpirr
83	Cora of Hyde Park ..	J. R. Telford ..	Ayrshire	7,020	4·44	311·48	Modesty's Implex of Glencairn
84	Mary Birt of Kelburn ..	Mrs. I. Beard ..	Jersey ..	5,614	5·54	311·13	Southern King 2nd
85	Noorat Deception ..	Mrs. A. Black ..	,, ..	5,728	5·36	307·25	Milklad of Banyule
86	Prim Patch of Yarra Brae	Flack and Sewell ..	Friesian	8,975	3·41	305·85	Longbeach Big Patch
87	Waituki Princess Abigail	A. W. Jones and Son	,, ..	9,000	3·39	305·41	Royal Prince Pietertje de Kol
88	Gem of the Glen ..	H. Luxton ..	Jersey ..	4,808	6·34	304·88	Lord Grey of Linden
89	Morocco's Pansy of Staghorn	F. Bidgood ..	,, ..	5,526	5·51	304·66	Morocco Bound
90	Quality's Duchess of Tuerong	A. W. Findlay ..	,, ..	5,054	6·00	303·11	Quality 6th's Son of Melrose
91	Lady Grey 12th of St. Albans	A. W. Jones and Son	,, ..	5,089	5·94	302·46	Admiral 2nd
92	Sovereign	Department of Agriculture	Red Poll	6,830	4·42	301·55	Belligerent
93	Lotus of Banyule ..	Lyon and Kerr ..	Jersey ..	5,032	5·98	301·13	Clementine's King
94	Romany Girl 3rd of Tarnpirr	Alston Estate ..	,, ..	4,670	6·41	299·48	Prince of Tarnpirr
95	Twill of Banyule ..	Lyon and Kerr ..	,, ..	5,614	5·33	299·01	Audrey's Lord Twylish
96	Bloomer of Medburn Grove	C. Bamford ..	Ayrshire	6,977	4·28	298·52	St. Elfred of Willowvale
97	Plum of Corriedale ..	Mrs. E. Lithgow ..	Red Poll	6,264	4·76	298·14	Redbank Persian
98	Queenie 2nd of Willow Park	W. K. Atkinson ..	Shorthorn	7,649	3·88	298·01	Havelock of Dabalara
99	Lady of Belgonia ..	P. J. Maloney ..	Jersey ..	5,625	5·27	296·32	Lion of Bonshaw
100	Dewpop	Evans Bros. ..	Red Poll	6,681	4·43	296·02	Bellum Victor
101	Bright Stockings of Warenda	O. Cutler.. ..	Jersey ..	5,901	5·01	295·84	Brighton Cub
102	Springfield White Posch	Flack and Sewell ..	Friesian	7,612	3·89	295·80	Rosevale Inka Sylvia Posch
103	Modesty of Cathcart ..	W. J. McKernan ..	Ayrshire	6,289	4·70	295·40	Lavendo of Glencairn
104	Countess 2nd of Ashby..	Dickinson Bros. ..	Friesian	8,273	3·58	295·39	Bolobek General
105	Boltonia of Springhurst	J. D. Read ..	Jersey ..	5,755	5·12	294·40	Attraction of Springhurst
106	Gaiety of Medburn Grove	C. Bamford ..	Ayrshire	7,559	3·87	292·79	St. Elfred of Willowvale
107	Esteem of Glencira ..	C. Lees	,, ..	6,499	4·50	292·52	Kia Ora of Haydowns
108	Dainty Maid of Ben Kell	R. Ralston ..	,, ..	6,103	4·79	292·34	Marvel of Willowvale
109	Ashlyn 25	J. T. Tweddle ..	Friesian	8,705	3·36	292·29	Black and White King of Ashlyn
110	Winnie of Kelvin Grove	N. Gange ..	Ayrshire	6,492	4·50	291·90	Model of Seafield
111	Rosemary of Springhurst	J. D. Read ..	Jersey ..	5,983	4·89	291·79	Petain
112	Canary of Tuerong ..	A. W. Findlay ..	,, ..	5,326	5·45	290·31	Quality's 6th Son of Melrose
113	Aspect	C. Lees	Ayrshire	7,211	4·02	290·19	Jock of Gowan Bank
114	Floss of Tuerong ..	A. W. Findlay ..	Jersey ..	5,538	5·24	289·95	Quality's 6th Son of Melrose
115	Primrose of Winslade ..	C. Lees	Ayrshire	5,542	5·19	287·77	Bowler of Seafield
116	Spot of Medburn Grove	C. Bamford ..	,, ..	6,449	4·45	286·78	St. Elfred of Willowvale
117	Florrie of Warenda ..	T. Mesley ..	Jersey ..	4,975	5·76	286·77	Jessie's Handsome Boy of Melrose

COWS UNDER 4 YEARS OF AGE—200 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
118	Queen of Wollingurry ..	A. Joshua ..	Jersey ..	5,643	5·08	286·67	Soprano's Mystifier of Woolingurry
119	Baronia of Woodbyne ..	J. Benallack ..	Ayrshire	6,465	4·13	286·56	Bailee of Oakbank
120	Oatlands Annie ..	J. Thorburn ..	,, ..	5,947	4·80	285·54	Douglas of Drayton
121	Ruby of Tarnpirr ..	D. C. Miller ..	Jersey ..	5,429	5·25	284·78	Eminent V.C.
122	Seville of Kelburn ..	A. Robertson ..	,, ..	4,603	6·12	281·52	Noble Lad of Kelburn
123	Syringa of Springhurst ..	H. Luxton ..	,, ..	4,502	6·24	280·87	Brighton Cub
124	Fairy Queen of Springvale	R. C. Campbell ..	,, ..	5,344	5·25	280·32	Comedy King of St. Albans
125	Romany Girl 2nd of Tarnpirr	F. Trevaskis ..	,, ..	5,145	5·44	279·90	First Choice of Melrose
126	Mirror of Sunnyside ..	A. E. Castle ..	Ayrshire	7,416	3·76	278·57	Bernie of Oakbank
127	Carrie of Hill View ..	Mrs. E. O'Donoghue ..	,, ..	6,281	4·43	278·29	Majestic of Drayton
128	Banksia	Department of Agriculture	Red Poll	6,047	4·59	277·86	Belligerent
129	Foliage of Golden Vein ..	W. McIvor ..	Ayrshire	6,392	4·34	277·62	Sergeant of Golden Vein
130	Ruby of Springfield ..	J. W. Cochrane ..	,, ..	6,778	4·08	276·96	Beauty's Majestic of Gleneira
131	Patience of Ben Kell ..	R. Ralston ..	,, ..	6,427	4·30	276·63	Marvel of Willowvale
132	Ashlyn 33	J. T. Tweddle ..	Friesian	7,494	3·69	276·62	Black and White King Ashlyn
133	Morocco's Choice of Kirkhill	D. C. Miller ..	Jersey ..	4,618	5·95	274·97	Blanchette's Fox
134	Miss Muller 3rd of Berry	Flack and Sewell ..	Friesian	8,128	3·37	274·70	Marquis of Berry
135	Belle of Craigneil ..	A. W. Jones and Son	,, ..	7,406	3·71	274·67	Sir Kol of Canada
136	Honey of Wanalta ..	C. W. W. Macauley	Jersey ..	5,552	4·95	274·64	Noble Voice of Banyule
137	Margaret's Fancy of Somerset	A. E. Batson ..	,, ..	5,019	5·46	274·02	Admiral
138	Heather of Range View	C. Lees	Ayrshire	5,939	4·61	273·77	Noble Mac of Glen Avon
139	Goldfinch of Fair View ..	A. A. Broad ..	Jersey ..	5,118	5·34	273·25	Antonio
140	Snowdrop of Inverleigh	A. H. Schier ..	Ayrshire	6,322	4·32	273·13	Major of Gowrie Park
141	Muriel 2nd of Somerset	A. E. Batson ..	Jersey ..	4,926	5·54	273·06	Lady Grey 2nd's Golden Spark
142	Plumstead Permain ..	T. H. Payne ..	Red Poll	6,401	4·26	272·89	Plumstead Pearl
143	Olive Berry of Glenbrae	M. and W. A. Francis	Ayrshire	6,721	4·06	272·63	Warlock of Fernhill
144	Butter Queen 2nd of Meryula	A. W. Jones and Son	Jersey ..	4,826	5·64	272·41	Meryula
145	Rita of Hill View ..	Mrs. C. O'Donoghue	Ayrshire	6,089	4·45	270·71	Majestic of Drayton
146	Eva 2nd of Glencairn ..	G. Gange ..	,, ..	6,596	4·01	270·44	Lavendo of Glencairn
147	Marilla of Burnside ..	C. Lees	,, ..	6,845	3·94	269·74	Gregor of Oakband
148	Samara	Department of Agriculture	Red Poll	5,903	4·56	269·52	High Flier
149	Lady Elector 7th of Melrose	W. Woodmason ..	Jersey ..	4,832	5·56	268·77	Golden Fern'sViscount (imp.
150	Wisteria of Kelvin Grove	G. Gange ..	Ayrshire	6,644	4·02	267·08	Model of Seafield
151	Daphne of Hillcrest ..	F. G. Sadler ..	Shorthorn	6,615	4·03	266·76	Morven Charming Duke 6th
152	Model of Woodstock Grange	H. D. W. Canobio ..	Ayrshire	5,639	4·72	266·51	Combine of Glengowrie
153	Star of Kelvin Grove ..	W. J. McKernan ..	,, ..	6,235	4·27	266·23	Model of Seafield
154	Fancybread of Glen Iris	C. D. Lloyd ..	Jersey ..	5,003	5·32	265·91	Brown Chief
155	Trixie of Hillcrest ..	C. J. Griffiths ..	,, ..	5,106	5·21	265·84	Bell Boy of Hillcrest
156	Fancy of Fairview ..	A. E. Haughton ..	,, ..	5,288	4·99	264·04	Jolly Mike
157	Dairymaid of Evergreen	H. S. Gibson ..	Ayrshire	6,583	4·00	263·53	Luminous of Drayton
158	St. Albans Lily ..	S. Russell ..	Friesian	8,142	3·23	263·31	Burdett's Prince
159	Azelia 2nd of Ferndale ..	G. Gange ..	Ayrshire	5,360	4·91	363·23	Glen Elgin's Ian
160	Empress of Holly Green	H. Webb	,, ..	6,110	4·31	263·17	Marcus of Holly Green
161	Jubilee Periwinkle ..	Miss B. Reid ..	Jersey ..	4,453	5·86	261·02	Bundoora Jubilee Fox
162	Pomahaka Snowflake ..	J. Wills	Friesian	7,904	3·29	260·28	Springfield Champion
163	Tulip of Jerseyvale ..	Mrs. L. Orchard ..	Jersey ..	5,150	5·05	260·18	Golden Twylish
164	Rosetta of Kyle ..	W. T. Cullen ..	Ayrshire	6,181	4·20	259·33	Forman of Gowrie Park
165	Jessemia 13th of Kingsvale	F. W. Beischer ..	Jersey ..	4,349	5·94	258·30	Bonnie Lad of Kings Vale
166	Favourite of Ben Kell ..	R. Ralston ..	Ayrshire	5,948	4·34	258·24	Marvel of Willowvale
167	Jessie of Welbourne ..	G. Rowe ..	Jersey ..	5,872	4·39	257·86	Young Premier
168	Royal Princess 2nd of Golden Vein	W. McIvor ..	Ayrshire	6,454	3·99	257·64	Sergeant of Golden Vein
169	Phyllis of Dunachton ..	R. Hall	,, ..	6,073	4·24	257·62	Laurie of Dunachton
170	Lily of Wattle Bank ..	A. Kirby ..	,, ..	5,722	4·47	256·05	Brownie of Gowrie Park
171	Springfield No. 4 ..	Flack and Sewell ..	Friesian	6,951	3·68	255·85	Rosevale Inka Sylvia Posch
172	Monavale Primrose Paxton	Flack and Sewell ..	,, ..	6,971	3·67	255·63	Prince Pietje Paxton
173	Jenny Lind 16th of Melrose	E. A. Denis ..	Jersey ..	3,868	6·59	255·03	Golden Fern's Viscount (imp.)
174	Noreen of Golden Vein ..	W. McIvor ..	Ayrshire	6,044	4·21	254·27	Earl of Golden Vein
175	Patch of Banyule ..	H. Perdriau ..	,, ..	5,318	4·77	253·89	Rational of Oakbank
176	Japana	G. A. Waite ..	Friesian	7,207	3·52	253·83	Count Togo
177	Ideal of Ben Kell ..	R. Ralston ..	,, ..	6,245	4·06	253·81	Marvel of Willowvale
178	Cher Amie 3rd of Banyule	McFarlane Bros. ..	Ayrshire	6,251	4·04	252·37	Loyal of Oakbank

COWS UNDER 4 YEARS OF AGE—200 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
179	Jubilee Tecoma ..	Miss B. Reid ..	Jersey ..	5,245	4·81	252·31	Twylish Madiera's Fox 2nd of Werribee
180	Minetta of Kyle ..	W. T. Cullen ..	Ayrshire	6,427	3·92	251·72	Prince Rupert of Langley Park
181	Segis Hengerveld of Lydholme	Flack and Sewell ..	Friesian	7,558	3·33	251·53	Cluny Hengerveld of Lydholme
182	Gwen	S. Russell ..	,, ..	6,506	3·85	250·19	Count Togo
183	Noorat Cherry ..	Mrs. A. Black ..	Jersey ..	4,304	5·81	250·14	Milklad of Banyule
184	Pearline of Retreat ..	W. J. Muhlebach ..	Ayrshire	5,896	4·24	249·91	Musician of Willow Vale
185	Ashlyn 85	J. T. Tweddle ..	Friesian	6,256	3.99	249·78	Royal King Champion
186	Rose of Langley Park ..	Callery Bros. ..	Ayrshire	5,961	4·17	248·49	Playaway of Willowvale
187	Gem of Evergreen ..	H. S. Gibson ..	,, ..	6,230	3·99	248·48	Luminous of Drayton
188	Lupin of Ellerslie ..	H. S. Gibson ..	,, ..	6,591	3·76	248·02	Minstrel of Glencairn
189	Duchess of Locheden ..	W. J. McKernan	,, ..	5,605	4·41	247·19	Harry of Golden Vein
190	Modesty of Inverleigh ..	A. H. Schier ..	,, ..	6,576	3·76	247·09	Major of Gowrie Park
191	Peeress of Ben Kell ..	R. Ralston ..	,, ..	6,170	4·00	246·56	Desmond of Ben Kell
192	Viola of Dunachton ..	R. Hall ..	,, ..	7,034	3·50	246·31	Adela's Jamie of Raith
193	Rye Cake of Glen Iris ..	C. D. Lloyd ..	Jersey ..	4,121	5·98	246·23	Cream Chief of Glen Iris
194	Mervette	Evans Bros. ..	Red Poll	5,409	4·54	245·81	Bellum Victor
195	Heather Bell of Ayr Brae	McFarlane Bros. ..	Ayrshire	6,108	4·02	245·53	Harmonist of Ellerslie
196	Maudie 2nd of Retreat..	N. Gange ..	,, ..	7,098	3·45	245·09	Musician of Willowvale
197	Victoria Dutchmaid ..	Department of Agriculture	Friesian	6,351	3·85	244·30	Dominion Domino Dutch Boy
198	Queen Mab of Hillcrest	A. Robertson ..	Jersey ..	4,678	5·22	244·22	Bell Boy of Hillcrest
199	Peggy of Woolamai Park	G. Kent	Ayrshire	5,436	4·49	244·22	Prince of Mapleton
200	Gladiana of La Trobe ..	Sale High School ..	,, ..	4,678	5·21	243·69	Darnley of Gowrie Park
201	Oatlands Maggie ..	J. Thorburn ..	Ayrshire	5,594	4·33	243·37	Malster of Seafield
202	White Cake of Glen Iris	C. D. Lloyd ..	Jersey ..	4,565	5·31	242·57	Brown Chief
203	Gladsome of Roxburgh	T. Douglas ..	Ayrshire	6,570	3·63	238·72	Good Lad of Roxburgh
204	Petal of Roseleigh ..	N. Gange ..	,, ..	6,571	3·63	238·26	Burleigh of Gowrie Park
205	Oatlands Beauty ..	J. Thorburn ..	,, ..	5,263	4·53	238·17	Malster of Seafield
206	Lady Em of Ever Green	H. S. Gibson ..	,, ..	5,820	4·07	237·67	General Gordon
207	Audrey's Victress of Somerville	H. Luxton ..	Jersey ..	4,381	5·40	236·69	Daphne's Prince
208	Elsie of Glencourt ..	H. Munro ..	Ayrshire	6,146	3·85	236·33	Bonny Chief of Gowrie Park
209	La Marseillaise ..	Department of Agriculture	Red Poll	6,104	3·86	235·38	Longford Major (imp.)
210	Lassie of Ayr Brae ..	McFarlane Bros. ..	Ayrshire	6,223	3·78	235·37	Harmonist of Ellerslie
211	Sweet Pansy of Fair View	Miss S. L. Robinson	Jersey ..	4,732	4·94	234·74	Sir Antonio
212	Model of Kirkhill ..	D. C. Miller ..	,, ..	4,237	5·54	233·90	Favourite's 4th Noble
213	Lady Bell of Invergordon	C. G. Newton ..	Ayrshire	5,365	4·33	232·45	Cocky Rab of Glencira
214	Japana	Smith and Sons ..	Friesian	6,970	3·33	232·08	Count Togo
215	Jean of La Motte ..	J. Thorburn ..	Ayrshire	5,336	4·14	228·93	Malster of Seafield
216	Gladys of Sparrovale ..	Geelong Harbour Trust	,, ..	5,173	4·41	227·90	Scottish King of Gowrie Park
217	Silvermine 3rd of Clover Flat	F. Raggatt ..	Jersey ..	4,787	4·76	227·81	Prince Noreen
218	Adella of Ben Kell ..	R. Ralston ..	Ayrshire	5,497	4·12	226·48	Girvan of Oakbank
219	Princess of Winslade ..	H. S. Gibson ..	,, ..	4,552	4·97	226·25	Bowler of Seafield
220	Satsuma	G. A. Waite ..	Friesian	6,086	3·68	225·12	Count Togo
221	Fidgett 2nd of Warrook	Cockbill and Gibbs	Ayrshire	5,963	3·75	222·81	Lena's Frederick
222	Grace of Roseleigh ..	G. Gange ..	,, ..	5,538	4·02	222·64	Burleigh of Gowrie Park
223	Brilliant 2nd of Kilmarnock	Sadler Bros. ..	,, ..	5,149	4·32	222·56	Laura's Laird of Gowrie Park
224	Milkmaid of Inverleigh	A. H. Schier ..	,, ..	5,688	3·91	222·44	Major of Gowrie Park
225	Tottie of Warrook ..	Cockbill and Gibbs	,, ..	5,087	4·36	221·96	Triumph of Warrook
226	Jennie of Burnside ..	Cockbill and Gibbs	,, ..	4,878	4·52	220·39	Ventry of Seafield
227	Sunshine of Roxburgh ..	Cockbill and Gibbs	,, ..	5,163	4·25	219·61	Good Lad of Roxburgh
228	Flower of Roseleigh ..	N. Gange ..	,, ..	5,274	4·16	219·44	Baron of Roseleigh
229	Bonny Jean of Invergordon	C. G. Newton ..	,, ..	5,350	4·10	219·42	Cocky Rab of Glencira
230	Prudence of Roxburgh..	A. H. Schier ..	,, ..	5,967	3·64	217·34	Good Lad of Roxburgh
231	Heronine 2nd of Garden Vale	R. C. Campbell ..	Jersey ..	4,300	5·05	217·24	Doreen's Chief
232	Linda of Tuerong ..	A. W. Findlay ..	,, ..	4,527	4·79	216·87	Bonnie Lad of Kings Vale
233	Good Luck of Glenora ..	Cockbill and Gibbs	Ayrshire	5,144	4·21	216·66	Good Lad of Roxburgh
234	Duchess of Hillcrest ..	M. and W. A. Francis	,, ..	4,964	4·36	216·26	Prince of Mapleton
235	Corona	Department of Agriculture	Red Poll	5,481	3·94	216·05	Nicotine
236	Bright Jewell 2nd of St. Albans	R. Faragher ..	Jersey ..	3,517	6·13	215·54	Brighton King 8th
237	Jessie de Kol Kroons ..	J. T. Tweddle ..	Friesian	5,967	3·61	215·28	Dominion Domino Dutch Lad
238	Veronica of Ben Kell ..	R. Ralston ..	Ayrshire	5,305	4·06	215·15	Girvan of Oakbank
239	Pearl Queen of Wethersdane	A. H. Schier ..	,, ..	5,314	4·01	213·28	His Majesty of Wethersdane

COWS UNDER 4 YEARS OF AGE—200 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
240	Bramble 2nd of Linden	H. Luxton ..	Jersey ..	3,852	5·51	212·22	Annette's Chief of Linden
241	Gladwyn of La Trobe ..	Sale High School ..	Ayrshire	4,579	4·63	211·90	Darnley of Gowrie Park
242	Fine Quality of Gleneira	A. H. Schier ..	,, ..	4,557	4·37	209·26	Kia Ora of Haydowns
243	Oatlands Nancy ..	J. Thorburn ..	,, ..	5,244	3·99	208·37	Maister of Seafield
244	Vellum	Evans Bros. ..	Red Poll	5,727	3·64	208·19	Bellum Victor
245	Peerless of Meadow Vale	J. Hunter ..	Jersey ..	3,757	5·51	207·13	Handsome Lad
246	Pattie of Hillcrest ..	G. Rowe ..	,, ..	4,356	4·69	204·41	Bell Boy of Hillcrest
247	Sunshine of Roxburgh ..	Cockbill and Gibbs	Ayrshire	4,919	4·14	203·45	Good Lad of Roxburgh
248	Madeline of Inverleigh	A. H. Schier ..	,, ..	4,562	4·44	202·66	Lavendo of Glencairn
249	Profit of Roxburgh ..	A. H. Schier ..	,, ..	5,604	3·61	202·24	Good Lad of Roxburgh
250	Rocket of Ruhbank ..	Miss C. L. Robinson	Jersey ..	3,367	5·99	201·76	Kyora's Lotina's Financia King
251	Oatlands Peg ..	J. Thorburn ..	Ayrshire	4,554	4·41	200·83	Maister of Seafield
252	Gem of Hillcrest ..	G. Rowe ..	Jersey ..	4,292	4·67	200·62	Bell Boy of Hillcrest
253	Moss Rose 8th ..	F. G. Sadler ..	Shorthorn	4,658	4·30	200·51	43rd Earl of Pentland

Heifers—175 lbs. Standard.

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
1	Patricia of Warenda ..	W. H. Axford ..	Jersey ..	7,865	6·18	486·30	Jessie's Handsome Boy
2	Miss Guy of Tarnpirr ..	F. Trevaskis ..	,, ..	7,422	6·08	451·54	Mythic's Choice
3	Lady Lauder of Warenda	W. H. Axford ..	,, ..	6,419	6·60	423·52	Choirmaster of Warenda
4	Lady Marge 2nd of Jerseyholm	T. Harvey ..	,, ..	7,410	5·46	404·79	Emperor
5	Canary 12th of King's Vale	J. Anderson, junr...	,, ..	7,582	5·33	404·17	Bonny Lad of King's Vale
6	Carmen of Hillcrest ..	W. H. Axford ..	,, ..	6,944	5·81	403·53	Bell Boy of Hillcrest
7	Beauty of Belgonia ..	P. J. Maloney ..	,, ..	7,738	5·16	399·76	Butter Lad of Bonshaw
8	Harpsichord of Banyule	Lyon and Kerr ..	,, ..	8,358	4·77	398·38	Audrey's Lord Twylish
9	Sparkle 4th of Jerseyholm	T. Harvey ..	,, ..	7,312	5·37	392·85	New Alliance
10	Burnbank Woodcrest Segis	Flack and Sewell ..	Friesian	10,669	3·62	386·34	Dominion Woodcrest Piebe Mercedes
11	Westmere Oakwood Pride	J. Platfuss ..	,, ..	11,620	3·37	380·45	Dominion Oakwood
12	Silvermine 23rd of Banyule	C. G. Lyon ..	Jersey ..	7,233	5·20	376·09	Audrey's Lord Twylish
13	Maitland's Petal of Elouera	C. G. Lyon ..	,, ..	6,607	5·68	575·09	Audrey's Lord Twylish
14	Lantana 2nd of Springhurst	C. Deverell ..	,, ..	6,018	6·23	374·74	Kerensky of Springhurst
15	Tiny of Meadowvale ..	W. H. Atherton ..	,, ..	5,883	6·35	373·59	Mythic's Choice
16	Linda 52nd of King's Vale	J. Anderson, junr...	,, ..	6,249	5·84	364·91	Bonnie Lad of King's Vale
17	Viola 5th of King's Vale	J. Anderson, junr.	Jersey ..	6,762	5·30	358·69	Bonny Lad of King's Vale
18	Springfield No. 9 ..	S. Russell ..	Friesian	9,824	3·63	356·82	Rosevale Inka Sylvia Posch
19	Silver Mist 2nd of Kameruka	Lyon and Kerr ..	Jersey ..	6,403	5·55	355·27	Mystifier
20	Rosevale Jessie Posch ..	J. T. Tweddle ..	Friesian	10,829	3·27	353·62	Rosevale Korndyke Sylvia Posch
21	Westmere Oakwood Duchess	J. Platfuss ..	,, ..	10,319	3·41	351·95	Dominion Oakwood
22	St. Alban's Netherland Princess	A. W. Jones and Son	,, ..	10,289	3·40	349·89	Westmere Prince Mercedes
23	Graceful Duchess 22nd of Melrose	W. Woodmason ..	Jersey ..	5,781	6·05	349·77	Golden Fern's Viscount
24	Westmere Inka Pietertje	A. W. Jones and Son	Friesian	8,925	3·90	348·50	Pietertje Netherlands Paul
25	Rosevale Rosie Abberkerk	J. T. Tweddle ..	,, ..	11,398	3·05	347·42	Rosevale Korndyke Sylvia Posch
26	Show Girl of Tarnpirr ..	Mrs. E. M. Lennie..	Jersey ..	6,265	5·53	346·36	Linda's Record of King's Vale
27	My Luck of Tarnpirr	W. Tendeson ..	,, ..	5,924	5·80	343·87	Arcadia's Choice
28	Starbright's Princess ..	C. D. Lloyd ..	,, ..	5,442	6·31	343·32	Island Northwood Satisfaction
29	Northwood Queen of Somerville	J. Hutchinson ..	,, ..	6,689	5·03	336·57	Werribee Maderia Northwood King
30	Bonnie of Belgonia ..	P. J. Maloney ..	,, ..	6,084	5·49	334·24	Butterlad of Bonshaw

HEIFERS—175 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
31	Werribee Wyandotte Cream	F. E. Wilcox ..	Jersey ..	6,320	5·29	334·15	Werribee Wyandotte Fancy
32	Rarity of Meadowvale ..	W. H. Atherton ..	,, ..	5,263	6·28	330·52	Handsome Lad
33	Beauty of St. Albans ..	A. W. Jones and Son	,, ..	5,878	5·61	329·79	Eminent V.C.
34	Gold Bird of Methven ..	C. Deverell ..	,, ..	6,034	5·45	328·98	Haigh of Springhurst
35	Fuchsia of St. Albans ..	A. W. Jones and Son	,, ..	6,399	5·12	327·54	Brighton King 8th
36	Mystery 22nd of Melrose	A. W. Jones and Son	,, ..	4,702	6·92	325·36	Jessie 15th's Handsome Boy of Melrose
37	Lassie 5th of Clover Flat	F. Raggatt ..	,, ..	6,282	5·12	321·62	Curious King
38	Blush of Willow Park ..	W. K. Atkinson ..	Shorthorn	8,144	3·93	320·02	Havelock of Darbalara
39	Bolobek Frieda ..	O. J. Syme	Friesian	8,619	3·72	319·61	Rhoda's Prince of Rubicon
40	Tulip 2nd of Springhurst	J. D. Read ..	Jersey ..	5,639	5·61	316·47	Attraction of Springhurst
41	Westmere Ponteac Gem2nd	A. W. Jones and Son	Friesian	9,122	3·47	316·43	Woodcrest Pietertje Ponteac
42	Lady Monica 12th ..	J. Anderson, junr.	Jersey ..	5,214	5·99	312·57	Jessemias Imperial 5th of King's Vale
43	Bolobek Dora ..	O. J. Syme ..	Friesian	8,073	3·87	312·44	Johanna Lad
44	Dimple of Craigneil ..	S. Russell ..	,, ..	8,767	3·55	311·48	King Mercena
45	Dora of Woodstock Grange	H. D. W. Canobio ..	Ayrshire	7,142	4·34	311·36	Combine of Glengowrie
46	Lady Grey 15th of St. Albans	A. W. Jones and Son	Jersey ..	5,987	5·20	311·14	Brighton King 8th
47	Tuberose of Springhurst	J. D. Read ..	,, ..	6,127	5·07	310·86	Attraction of Springhurst
48	Violet 3rd of Lake Valley	G. Vallance ..	Ayrshire	7,295	4·26	310·84	Joffre of Yalart
49	Victoria Dutch Wood ..	Department of Agriculture	Friesian	8,301	3·73	309·81	Domino Dutch Boy
50	Brilliance of Kelburn ..	Mrs. I. Beard ..	Jersey ..	5,681	5·45	309·49	Noble's Lad of Kelburn
51	Burnbank Mercedes Maggie	Flack and Sewell ..	Friesian	9,326	3·30	307·32	Dominion Gay Mercedes
52	Model of Holly Green ..	H. L. Webb ..	Ayrshire	7,484	4·11	307·29	Maxwell of Gleneira
53	Silver Fern 2nd of Kameruka	Lyon and Kerr ..	Jersey ..	6,403	5·55	305·27	Mystifier
54	Tigra	Department of Agriculture	Red Poll	7,767	3·92	304·72	Nicotine
55	Vanilla 17th of Melrose	W. Woodmason ..	Jersey ..	5,768	5·26	303·10	Golden Fern's Viscount (imp.)
56	Colantha Curley Segis ..	O. J. Syme ..	Friesian	8,336	3·62	301·95	Cordyline Colantha Hero
57	Viola's Golden Princess	C. D. Lloyd ..	Jersey ..	4,869	6·20	301·91	Viola's Golden Laddie
58	Beanie of Sparrovale ..	Geelong Harbor Trust	Ayrshire	8,270	3·65	301·90	Jamie of Sparrovale
59	Lady Lene of Elouera ..	H. Luxton ..	Jersey ..	6,008	5·02	301·33	Lord Richmond
60	Thora's Audrey of Elouera	Lyon and Kerr ..	,, ..	5,928	5·07	300·30	Audrey's Lord Twylish
61	Marigold of Banyule ..	Lyon and Kerr ..	,, ..	5,361	5·60	300·03	Audrey's Lord Twylish
62	Gaiety of Craigneil ..	A. W. Jones and Son	Friesian	7,934	3·78	299·94	Neil Mercena
63	Werribee Kinglark Bluebell	F. E. Wilcox ..	Jersey ..	4,643	6·46	299·80	Werribee Island Bluebell
64	Linda of the Valley ..	Mrs. E. M. Lennie..	,, ..	5,134	5·81	298·57	Banjo of Warenda
65	Oakleaf Fobes ..	Smith and Sons ..	Friesian	8,415	3·55	298·52	Dominion Oakdale
66	Ransome Lass 2nd ..	A. W. Jones and Son	,, ..	8,304	3·59	298·45	Canterbury Statesman
67	Peggy Oride of Warenda	T. Mesley ..	Jersey ..	4,435	6·72	298·08	Choirmaster of Warenda
68	Bloomfield Mutual Lassie	A. W. Jones and Sons	Friesian	7,785	3·83	297·84	Dominion Woodcrest Peibe Mercedes
69	Ada of Langley Park ..	Callery Bros. ..	Ayrshire	7,147	4·17	297·76	Gallant Lad of View Hill
70	Handsome Girl 10th of Melrose	W. Woodmason ..	Jersey ..	4,925	6·05	297·74	Golden Fern's Viscount (imp)
71	Bolobek Agnes ..	O. J. Syme ..	Friesian	8,833	3·37	297·74	Rhoda Prince of Rubicon
72	Silver Daisy of Terara ..	A. Joshua ..	Jersey ..	4,862	6·12	297·53	Daisy Boy of Nowra
73	Pleasure of Ben Kell	R. Ralston ..	Ayrshire	6,586	4·50	297·32	Alert of Ben Kell
74	Burnbank Inka Sylvia Violet	Flack and Sewell ..	Friesian	7,235	4·11	297·26	Rosevale Inka Burkeyje
75	Lady Mac of Medburn Grove	C. Bamford ..	Ayrshire	6,670	4·40	296·15	McAlister of Gowrie Park
76	Heatherbell of Sparrovale	Geelong Harbor Trust	,, ..	6,379	4·64	296·09	Scottish King of Gowrie Park
77	Rarity 12th of Melrose..	W. Woodmason ..	Jersey ..	4,909	6·02	295·66	Golden Fern's Viscount (imp)
78	Bahama	Department of Agriculture	Red Poll	6,734	4·36	293·59	Longford Major (imp.)
79	Beryl of Craigneil ..	A. W. Jones and Son	Friesian	7,930	3·70	293·55	Canterbury Statesman
80	Milkmaid of Banyule ..	Lyon and Kerr ..	Jersey ..	6,499	4·52	293·47	Audrey's Lord Twylish
81	Zoe 6th of Melrose ..	W. Woodmason ..	,, ..	4,785	6·13	293·35	Golden Fern's Viscount (imp.)
82	Quality of Meadowvale	W. H. Atherton ..	,, ..	5,129	5·71	293·12	Handsome Lad
83	Springfield No. 4 ..	Flack and Sewell ..	Friesian	8,107	3·61	292·66	Rosevale Inka Sylvia Posch
84	Bloom of Willow Park	W. K. Atkinson ..	Shorthorn	7,621	3·83	292·03	Havelock of Darbalara
85	Silvermine 22nd of Banyule	Lyon and Kerr ..	Jersey ..	5,689	5·13	291·83	Audrey's Lord Twylish
86	Noorat Peach.. ..	Mrs. A. Black ..	,, ..	5,568	5·22	290·88	Milklad of Banyule
87	Morven Daisy 7th ..	Kerr Bros. ..	Shorthorn	6,626	4·38	289·94	Morven York Rose 19th
88	Ruby of Tarnpirr ..	D. C. Miller ..	Jersey ..	5,703	5·08	289·78	Eminent V.C.
89	Wattle Bloom of Bellarie	W. H. Atherton ..	,, ..	5,370	5·39	289·66	Lord Richmond
90	Lady Maid 2nd ..	C. Lees ..	Ayrshire	6,275	4·60	288·92	Wallace of Roxburgh

HEIFERS—175 LBS. STANDARD—*continued*,

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
91	Burnbank Mercedes Violet	Flack and Sewell ..	Friesian	8,632	3·34	288·03	Dominion Gay Mercedes
92	Daisy 13th of Melrose ..	W. Woodmason ..	Jersey ..	5,377	5·34	287·37	Golden Fern's Viscount (imp.)
93	Attraction of Tuernong	A. W. Findlay ..	„ ..	5,163	5·55	286·83	Island Butter King (imp.)
94	Alice of Comely Banks..	W. and G. Finn ..	„ ..	5,731	5·00	286·73	Northwood Financier
95	Chevy 13th of Melrose ..	W. Woodmason ..	„ ..	5,263	5·42	281·99	Golden Fern's Viscount (imp
96	Mistletoe 3rd of Tarnpirr	A. Joshua ..	„ ..	4,826	5·88	283·56	Christmas Choice
97	Blanchette 5th of St. Albans	A. W. Jones and Son	„ ..	5,483	5·17	283·29	Brighton King 8th
98	Queenie of Spring Vale..	R. C. Campbell ..	„ ..	4,745	5·95	282·50	Comedy King of St. Albans
99	Bolobek Judith ..	O. J. Syme ..	Friesian	8,331	3·38	281·53	Rhoda Prince of Rubicon
100	Pansy of Gleneira ..	C. Lees ..	Ayrshire	6,508	4·32	281·27	Champion Triumph of Gleneira
101	Lizzie Birt of Kelburn..	A. Robertson ..	Jersey ..	5,662	4·96	281·04	Noble Lad of Kelburn
102	Scotswood Mystic ..	A. H. Schier ..	Ayrshire	6,597	4·25	280·35	Warwick of Sparrovale
103	Flo of Ever Green ..	H. S. Gibson ..	„ ..	6,161	4·54	279·87	Luminous of Drayton
104	Morven Daphne 14th ..	Kerr Bros. ..	Shorthorn	6,961	4·02	279·70	Morven York Rose 15th
105	Boree of Springhurst ..	J. D. Read ..	Jersey ..	5,673	4·92	279·25	Attraction of Springhurst
106	Daisy 14th of Melrose ..	W. Woodmason ..	„ ..	4,651	5·99	278·56	Golden Fern's Viscount (imp)
107	Fern of Springhurst ..	J. D. Read ..	„ ..	5,039	5·51	277·69	Engineer
108	Hazel of Locheden ..	W. J. McKernan ..	Ayrshire	5,946	4·65	277·65	Wily of Willow Vale
109	Tibeta	Department of Agriculture	Red Poll	6,446	4·30	277·59	Belligerent
110	Janet 2nd	Evans Bros. ..	„ ..	6,160	4·52	277·33	Dinkum Astrologer
111	Machree of Banyule ..	Lyon and Kerr ..	Jersey ..	4,577	6·05	276·80	Audrey's Lord Twylish
112	Lassie Fowler 9th of Melrose	W. Woodmason ..	„ ..	5,052	5·47	276·63	Golden Fern's Viscount (imp.)
113	Daisy 2nd of Lake Valley	G. Vallence ..	Ayrshire	7,270	3·80	276·21	Sea Prince of Retreat
114	Trinket of Banyule ..	H. Luxton ..	Jersey ..	5,182	5·31	275·43	Audrey's Lord Twylish
115	St. Alban's May Queen	A. W. Jones and Son	Friesian	7,864	3·50	275·19	Burdett's Prince
116	Annie 2nd of Medburn Grove	C. Bamford ..	Ayrshire	6,507	4·23	275·06	Lord Harry of Medburn Grove
117	Canary 4th of Lesterfield	P. Chirnside ..	Jersey ..	4,521	6·07	274·49	Quality 6th's Son of Melrose
118	Audrey's Lotus of Banyule	Lyon and Kerr ..	„ ..	5,392	5·09	274·36	Audrey's Lord Twylish
119	Hygeia of Sparrovale ..	Geelong Harbor Trust	Ayrshire	6,224	4·41	274·30	Luminous of Sparrovale
120	Janice of Sparrovale ..	Geelong Harbor Trust	„ ..	6,461	4·25	274·28	Jamie of Sparrovale
121	Carnation of Ferntree Vale	J. Phillips ..	Jersey ..	5,170	5·30	273·84	Jessie's Handsome Boy of Melrose
122	Springfield Nesta ..	A. W. Jones and Son	Friesian	8,496	3·22	273·17	Rosevale Inka Sylvia Posch
123	Maid 2nd of Linden ..	A. W. Jones and Son	Jersey ..	4,631	5·90	273·03	Chief of Linden
124	Velveteen 5th of Banyule	C. G. Lyon ..	„ ..	6,201	4·40	272·81	Milkmaid's Chief
125	Jessie 29th of Melrose ..	W. Woodmason ..	„ ..	4,632	5·89	272·61	Golden Fern's Viscount (imp.)
126	Queenie 3rd of Willow Park	W. K. Atkinson ..	Shorthorn	6,788	4·01	272·50	Havelock of Darbalara
127	Pearl 10th of Melrose ..	W. Woodmason ..	Jersey ..	4,445	6·13	272·49	Golden Fern's Viscount (imp.
128	Chevron	Department of Agriculture	Red Poll	6,562	4·15	272·01	Nicotine
129	Woorndoo	Warragul High School	„ ..	5,514	4·93	271·83	Belligerent (imp.)
130	Daisy of Ever Green ..	H. S. Gibson ..	Ayrshire	6,106	4·45	271·75	Chief of Sparrovale
131	Ashlyn 57	J. T. Tweddle ..	Friesian	7,667	3·53	270·59	Royal King Champion
132	Thora 9th of Banyule ..	Lyon and Kerr ..	Jersey ..	4,903	5·51	270·17	Audrey's Lord Twylish
133	Foregt-me-not of Retreat	W. J. Muhlebach ..	Ayrshire	5,789	4·66	269·96	Commonwealth of Retreat
134	Beltana	Department of Agriculture	Red Poll	6,534	4·11	268·66	Belligerent (imp.)
135	Morning Star of Woorayl	Leongatha High School	Jersey ..	4,824	5·56	268·64	Shooting Star
136	Adella of Inverleigh ..	A. H. Schier ..	Ayrshire	6,341	4·22	267·31	Warwick of Sparrovale
137	Thora 11th of Banyule..	C. G. Lyon ..	Jersey ..	5,381	4·96	267·25	Milkmaid's Chief
138	Daphne	Leongatha High School	„ ..	5,653	4·71	267·11	Shooting Star
139	Lady Starbright of Bruce Vale	H. Luxton ..	„ ..	4,914	5·43	267·07	Island Butter King (imp.)
140	Marise of Tarnpirr ..	E. A. Denis ..	„ ..	5,176	5·16	267·03	Eminent V.C.
141	Irish Flavour of Elouera	J. Scott	„ ..	4,911	5·43	266·54	Irishman
142	Ashlyn 58	Flack and Sewell ..	Friesian	6,103	4·36	266·03	Black and White King of Ashlyn
143	Noble's Morocco of Rainga	P. H. Lawrence ..	Jersey ..	5,752	4·62	265·75	Claribell's Noble 2nd
144	Canary of Tuerong ..	A. W. Findlay ..	„ ..	5,133	5·17	265·41	Quality's 6th Son of Melrose
145	Annie of Wattlebank ..	A. Kirby ..	Ayrshire	5,954	4·46	265·28	Weelfaird of Oakbank
146	Bareena Peace ..	Mrs. H. Lithgow ..	Red Poll	5,721	4·63	264·85	Belmont Grenadier
147	Foxglove 3rd of Tarnpirr	E. A. Denis ..	Jersey ..	4,595	5·76	264·75	Mythic's Choice of Tarnpirr
148	Maid 3rd of Linden ..	C. G. Lyon ..	„ ..	4,457	5·94	264·58	Chief of Linden
149	Peg of Colac	C. Wade	„ ..	5,348	4·95	264·51	Lassie's Fox of Colac
150	Daisy 9th of Jerseyholm	T. Harvey ..	„ ..	5,033	5·25	264·39	Emperor
151	Rosette of Springfield ..	J. W. Cochrane ..	Ayrshire	6,626	3·99	264·20	Goldfinder of Glen Alvie
152	Victoria Velvet ..	Department of Agriculture	Red Poll	6,134	4·30	263·73	Belligerent (imp)

HEIFERS—175 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
153	Ashlyn 52	J. T. Tweddle ..	Friesian	6,803	3·86	263·16	Royal King Champion
154	Clianthus of Springhurst	J. D. Read ..	Jersey	4,288	6·13	262·96	Arcadia's Choice
155	Dulcie of Ever Green ..	H. S. Gibson ..	Ayrshire	6,072	4·33	262·90	Luminous of Drayton
156	Miss Mac of Medburn Grove	C. Bamford ..	,, ..	6,066	4·33	262·63	Macalister of Gowrie Park
157	Cosmos of Springhurst	J. D. Read ..	Jersey ..	4,228	6·19	261·74	Arcadia's Choice
158	Thanas' Madeira of Somerville	J. Hutchinson ..	,, ..	4,834	5·39	260·55	Werribee Madeira Northwood King
159	Mollie Riley of Sparrovale	Geelong Harbor Trust	Ayrshire	5,718	4·55	260·31	The Laird of Sparrovale
160	Bertha of Medburn Grove	C. Bamford ..	,, ..	5,840	4·15	259·91	St. Elfred of Willow Vale
161	Forget-me-not of Springhurst	J. D. Read ..	Jersey ..	4,159	6·25	259·77	Engineer
162	Pearlie of Hyde Park ..	J. Telford ..	Ayrshire	5,536	4·68	258·98	Elsdon of Willow Vale
163	Burnbank Queen Patch	Flack and Sewell ..	Friesian	6,783	3·82	258·90	Rock Patch
164	Fairy Queen 4th of Linden	A. W. Jones and Son	Jersey ..	5,189	4·98	258·49	The Chief of Linden
165	Pansy of Rosemont ..	R. H. Maher ..	,, ..	4,826	5·33	257·09	Carrie's 5th Noble of Melrose
166	Burnbank Sylvia Posch	Flack and Sewell ..	Friesian	7,692	3·34	256·79	Rosevale Inka Burkegje
167	Princess of Willow Park	W. K. Atkinson ..	Shorthorn	7,054	3·63	256·10	Havelock of Darbalara
168	Rarity 13th of Melrose..	E. A. Denis ..	Jersey ..	4,658	5·50	256·00	Golden Fern's Viscount
169	Countess 4th of Ashby	Dickinson Bros. ..	Friesian	7,830	3·27	255·93	Milkman Jo
170	Mabel of Sparrovale ..	Geelong Harbor Trust	Ayrshire	6,123	4·18	255·73	Romeo of Sparrovale
171	Alsyke 2nd of Springhurst	J. D. Read ..	Jersey ..	4,181	6·11	255·34	Arcadia's Choice
172	Daisy of Hyde Park ..	J. R. Telford ..	Ayrshire	6,232	4·09	255·16	Pride of Midbranch
173	Ashlyn 56	J. T. Tweddle ..	Friesian	6,565	3·87	253·78	Royal King Champion
174	Glady's Mac of Medburn Grove	C. Bamford ..	Ayrshire	5,776	4·39	253·54	Macallister of Medburn Grove
175	Rosebell of Elmsdale ..	G. Vallence ..	,, ..	6,956	3·64	252·98	Majestic of Belle Vue
176	Princess of Woolamai Park	G. Kent	,, ..	5,700	4·44	252·95	Beauty's Majestic of Gleneira
177	Morven Ruby 3rd ..	Kerr Bros. ..	Shorthorn	6,044	4·18	252·36	Emperor of Derrimut 4th
178	Cissie of Wattlebank ..	A. Kirby ..	Ayrshire	5,893	4·28	251·96	Weelfair'd of Oakbank
179	Aria	Department of Agriculture	Red Poll	6,024	4·18	251·54	Longford Major (imp.)
180	Blossom 5th of Melrose	W. Woodmason ..	Jersey ..	4,442	5·64	250·58	Golden Fern's Viscount (imp.)
181	Maud	S. Russell ..	Friesian	5,798	4·32	250·41	Tarrawarra
182	Jessie Fobes Homestead of Oakview	J. T. Tweddle ..	,, ..	6,682	3·75	250·40	Dominion Dutch Lad
183	Countess 3rd of Ashby	G. A. Waite ..	,, ..	7,731	3·23	250·00	Bolobek General
184	Bertha 2nd of Ellerslie..	L. F. Armstrong ..	Ayrshire	5,932	4·21	249·52	Leila's Jamie of Ellerslie
185	Noble Guitar 2nd of Tinden	C. G. Lyon ..	Jersey ..	4,128	6·04	249·44	Annette's Chief of Linden
186	Ipomea of Springhurst	E. A. Denis ..	,, ...	4,008	6·21	248·94	Arcadia's Choice
187	Gaiety Girl 11th of Melrose	A. Joshua ..	,, ..	4,340	5·73	248·89	Latest Style of Melrose
188	Begonia of Ben Kell ..	R. Ralston ..	Ayrshire	5,951	4·17	248·35	Marvel of Willow Vale
189	Cream Nut of Glen Iris	C. D. Lloyd ..	Jersey ..	4,320	5·74	247·93	Perrees Duke
190	Morven Duchess 29th ..	Kerr Bros. ..	Shorthorn	6,335	3·91	247·45	Morven Weston Comet
191	Lady Elector 10th of Melros.	W. Woodmason ..	Jersey ..	4,092	6·03	246·81	Golden Fern's Viscount (imp.)
192	Burnbank Inka Sylvia Flower	Flack and Sewell ..	Friesian	5,916	4·17	246·50	Rosevale Inka Burkgje
193	Sybil	S. Russell ..	,, ..	6,873	3·58	246·13	Tarrawarra
194	Rosette of Hillcrest ..	G. Rowe ..	Jersey ..	5,171	4·75	245·60	Bell Boy of Hillcrest
195	Beeswing of Medburn Grove	C. Bamford ..	Ayrshire	6,413	3·83	245·38	Lord Harry of Medburn Grove
196	Kyora Velveteen ..	Miss L. Robinson ..	Jersey ..	4,779	5·13	245·11	Daisy Morocco's Fox of Werribee
197	Jubilee Rosemary ..	Miss B. Reid ..	,, ..	4,894	5·00	244·79	Poppy's King
198	Model of Kirkhill ..	D. C. Miller ..	,, ..	4,417	5·53	244·12	Favourite's 4th Noble
199	Delphinium of Springhurst	J. D. Read ..	,, ..	4,035	6·04	243·90	Arcadia's Choice
200	Bouvardia of Springhurst	J. D. Read ..	,, ..	5,235	4·66	243·89	Attraction of Springhurst
201	Opal of Ben Kell ..	R. Ralston ..	Ayrshire	5,893	4·14	243·83	Marvel of Willow Vale
202	Morven Duchess of Brunswick 4th	Kerr Bros. ..	Shorthorn	6,169	3·93	243·74	Morven Weston Comet
203	Hope of Peri	J. Phillips ..	Jersey ..	4,952	4·90	242·86	Lily's 3rd Prince of Holmwood
204	St. Alban's Daisy ..	A. W. Jones and Son	Friesian	6,495	3·69	240·05	St. Alban's May King
205	Bonza of Medburn Grove	C. Bamford ..	Ayrshire	6,500	3·69	240·00	Douglas of Medburn Grove
206	Lady Grey 16th of St. Albans	H. Luxton ..	Jersey ..	4,079	5·88	239·88	Brighton King 8th
207	Princess of Ayr Brae ..	McFarlane Bros. ..	Ayrshire	4,492	5·34	239·86	Harmonist of Ellerslie
208	War Bird ..	Department of Agriculture	Red Poll	6,336	3·78	239·61	Belligerent (imp.)
209	Bardy of Winslade ..	Cockbill and Gibbs	Ayrshire	5,383	4·45	239·56	Blue Boy of Glengowrie
210	Bud of Sparrovale ..	Geelong Harbor Trust	,, ..	4,380	5·46	239·08	The Laird of Sparrovale
211	Lady Hoyle 7th ..	Kerr Bros. ..	Shorthorn	6,451	3·69	237·82	Morven Weston Comet

HEIFERS—175 LBS. STANDARD.—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
212	Pearce's Heather ..	E. T. Pearce ..	Ayrshire	5,290	4·49	237·75	General of Gowrie Park
213	Victoria Bellona ..	Department of Agriculture	Friesian	6,438	3·69	237·54	Dominion Domino Dutch Boy
214	Irish Eyes of Elouera ..	J. Scott	Jersey ..	3,870	6·21	236·28	Irishman
215	Mermaid 2nd of St. Albans	A. W. Jones and Son	,, ..	4,285	5·50	235·85	Brighton King 8th
216	Bright of Woodbyrne ..	J. Benallack ..	Ayrshire	5,831	4·04	235·68	Pride of Warradale
217	Gertie 6th of Carracoorte	A. Kirby ..	,, ..	5,764	4·08	235·16	Lord Dudley of Gowrie Park
218	Rosie of Cave Hill ..	J. Wills	Friesian	6,727	3·49	235·03	Bolobek Major
219	Semiramis 3rd of Kameruka	Lyon and Kerr ..	Jersey ..	4,642	5·05	234·83	Silver King
220	Lady Perfection of Midburn Grove	C. Bamford ..	Ayrshire	5,758	4·07	234·41	Percy of Medburn Grove
221	Daisy of Jersey Vale ..	Mrs. L. Orchard ..	Jersey ..	4,378	5·34	233·57	Choice 2nd of Tarnpirr
222	Kyora Twinkle ..	Mrs. L. Robinson ..	,, ..	4,714	4·95	233·15	Daisy's Morocco's Fox of Werribee
223	Belladonna of Aberdour	Alston Estate ..	,, ..	4,457	5·20	231·82	Eminent V.C.
224	Daisy Brown of Inverleigh	A. H. Schier ..	Ayrshire	5,194	4·45	230·97	Warwick of Sparrovale
225	Pixie of Langley Park ..	Callery Bros. ..	,, ..	6,371	3·61	229·91	Playaway of Willow Vale
226	Beenie of La Motte ..	S. A. Johnson ..	,, ..	4,943	4·62	228·37	Bountiful's Eurobin of La Motte
227	Morven Ruby 5th ..	Kerr Bros. ..	Shorthorn	5,820	3·91	227·37	Morven Weston Cornet
228	Rosebud of Langley Park	Callery Bros. ..	Ayrshire	5,614	4·04	227·23	Playaway of Willow Vale
229	Bonnie Annie of Aberdour	Alston Estate ..	Jersey ..	4,178	5·43	226·78	Eminent V.C.
230	Pauline 2nd of Ashby ..	G. A. Waite ..	Friesian	6,755	3·35	226·14	St. Alban's May King
231	Cora of Hyde Park ..	J. R. Telford ..	Ayrshire	4,480	5·05	226·06	Modesty's Implex of Glencairn
232	Burnbank Domino Patch	Flack and Sewell ..	Friesian	6,862	3·28	224·94	Rock Patch
233	Woodbyrne Tartar ..	T. H. Payne ..	Red Poll	4,889	4·60	224·91	Honingham Astrologie (imp.)
234	Fun of Medburn Grove	C. Bamford ..	Ayrshire	5,916	3·80	224·59	Percy of Medburn Grove
235	Gold Point 2nd of Banyule	A. H. Schier ..	,, ..	4,730	4·74	224·38	Rational of Oakbank
236	Dainty of Glencourt ..	H. J. Munro ..	,, ..	5,451	4·11	223·80	Lennox of Dunachton
237	Beauty of Staghorn ..	F. Bidgood ..	Jersey ..	4,231	5·20	222·77	Werribee's Fancy Butter King
238	Phyllis of Woodbyrne ..	J. Benallack ..	Ayrshire	5,126	4·34	222·46	Merry Boy of Woodbyrne
239	Pearl Red 28th ..	F. G. Sadler ..	Shorthorn	5,476	4·06	222·46	Earl of Pentland 43rd
240	Melba of Hillcrest ..	A. Joshua ..	Jersey ..	4 732	4·67	221·06	Bell Boy of Hillcrest
241	Halecote Joan de Kol ..	G. A. Waite ..	Friesian	5,903	3·71	220·71	Victoria Milkman Jo
242	Melba of Holly Green ..	H. L. Webb ..	Ayrshire	4,969	4·43	220·23	Maxwell of Glencira
243	Fancy of Wattle Bank	A. Kirby	,, ..	4,893	4·50	220·16	Weelfair'd
244	Fuchsia of Medburn Grove	C. Bamford ..	,, ..	5,047	4·31	219·82	Lord Harry of Medburn Grove
245	Vanilla 16th of Melrose	W. Woodmason ..	Jersey ..	3,603	6·08	218·98	Golden Fern's Viscount
246	Burnbank Inka Segis Maggie	Flack and Sewell ..	Friesian	6,753	3·24	218·69	Alderly Segis Beets
247	Rita 4th of Linden ..	F. W. Beischer ..	Jersey ..	4,007	5·39	215·97	Queen's Chief of Linden
248	Queen of Scots 2nd of Banyule	A. H. Schier ..	Ayrshire	4,628	4·66	215·78	Rational of Oakbank
249	Graceful Duchess 23rd of Melrose	W. Woodmason ..	Jersey ..	3,649	5·91	215·55	Reveller of Melrose
250	Sunflower of Tarnpirr ..	Alston Estate ..	,, ..	4,105	5·25	215·49	My Queen's Choice of Tarnpirr
251	Defender's Queen of Somerset	A. E. Batson ..	,, ..	4,405	4·89	215·23	Lord Silvermine 8th of Banyule
252	Empire 8th of Melrose	C. Falkenberg ..	,, ..	4,107	5·24	215·14	Golden Fern's Viscount (imp.)
253	Pearl of Gleneira ..	C. Lees ..	Ayrshire	4,848	4·43	214·61	Sunstar of Lady Bank
254	Beauty 2nd of Belgonia	E. A. Denis ..	Jersey ..	3,968	5·40	214·07	Hedge of Banyule
255	Mona of Wethers lane ..	Cockbill and Gibbs	Ayrshire	4,934	4·33	213·46	His Majesty of Wethers lane
256	Happy Jean of Medburn Grove	C. Bamford ..	,, ..	4,451	4·79	213·27	Doctor of Medburn Grove
257	Bettsie of Inverleigh ..	A. H. Schier ..	,, ..	4,685	4·55	213·16	Warwick of Sparrovale
258	Princess of Strathbow ..	F. Raggatt ..	Jersey ..	4,444	4·79	212·92	Bonnie Lad of Kings Vale
259	Veronica of Dunachton	R. Hall	Ayrshire	5,453	3·90	212·74	Juan of Oakbank
260	Rose of Hillcrest ..	M. and W. A. Francis	,, ..	4,592	4·59	210·79	Victor of Warrook
261	Patricia of Kilmarnock	Sadler Bros. ..	,, ..	5,550	3·80	210·67	Laura's Laird of Gowrie Park
262	Carolina	Mrs. M. E. Carroll	Red Poll	4,873	4·30	209·73	Highflyer
263	Cissie of Willow Vale ..	R. Ralston ..	Ayrshire	5,521	3·80	209·66	Gain of Oakbank
264	Favorite 2nd of Staghorn	F. Bidgood ..	Jersey ..	4,494	4·65	209·17	Daisy's Fox 2nd
265	Flowing Vale Coney ..	R. E. Dent ..	Red Poll	4,396	4·77	208·31	Redmond
266	Mill Brown Duchess ..	Miss L. Robinson ..	Jersey ..	3,951	5·27	208·25	Brown Duke of Glen Iris
267	Fairy Queen of Langley Park	Callery Bros. ..	Ayrshire	4,812	4·32	208·05	May King of Langley Park
268	Viola 2nd of Carracoorte	W. Henderson ..	,, ..	4,744	4·36	206·95	Lord Dudley of Gowrie Park
269	Flower of Bignold ..	S. Earle	Jersey ..	4,257	4·83	205·91	Jolly Mike of Fairview
270	Joy of Hillcrest ..	G. Rowe ..	,, ..	3,741	5·49	205·41	Bell Boy of Hillcrest
271	Princess 2nd of Willow Park	W. K. Atkinson ..	Shorthorn	5,117	4·01	205·37	Havelock of Darbalara

HEIFERS—175 LBS. STANDARD—*continued.*

Order of Merit.	Name.	Owner.	Breed.	Milk.	Average Test.	Butter Fat.	Sire.
				lbs.		lbs.	
272	Oatland's Maggie ..	J. Thorburn ..	Ayrshire	4,615	4·44	205·14	Malster of Seafield
273	Blossom of Wethersdane	Cockbill and Gibbs	,, ..	5,140	3·98	204·33	His Majesty of Wethersdane
274	Lady Golden of Brucedale	A. Joshua ..	Jersey ..	3,610	5·65	204·15	Island Butter King (imp)
275	Gaiety of Roxburgh ..	T. Douglas ..	Ayrshire	5,512	3·69	203·75	Good Lad of Roxburgh
276	Countess of Carracoorte	W. Henderson ..	,, ..	4,350	4·67	203·34	Lord Dudley of Gowrie Park
277	Lady of Elmsdale ..	G. Vallence ..	,, ..	5,109	3·98	203·19	Majestic of Bell Vue
278	Moonlight of Medburn Grove	C. Bamford ..	,, ..	5,030	4·03	202·71	Lord Harry of Medburn Grove
279	Profit of Roxburgh ..	A. H. Schier ..	,, ..	5,604	3·61	202·24	Good Lad of Roxburgh
280	Nancy 2nd of Somerset..	A. E. Batson ..	Jersey ..	3,157	6·40	202·09	Lord Silvermine 8th of Banyule
281	Marguerite 2nd of the Valley	G. Vallence ..	Ayrshire	4,787	4·19	200·71	Sea Prince of Retreat
282	Three Castles ..	Department of Agriculture	Red Poll	4,677	4·27	199·94	Longford Major (imp.)
283	Neatest of Springvale ..	R. C. Campbell ..	Jersey	4,422	4·52	199·87	Comedy King of St. Albans
284	Duchess of Darley 2nd..	R. G. Mortor ..	Shorthorn	5,384	3·70	199·02	Morven Charming Duke 3rd
285	Duke's Spark of Glen Iris	S. S. Cameron ..	Jersey ..	3,141	6·33	198·97	Perrees Duke
286	Rose of Jersey Vale ..	Mrs. L. Orchard ..	,, ..	4,026	4·91	197·86	Golden Twylish
287	Halecote Ariadne ..	G. A. Waite ..	Friesian	5,350	3·69	197·60	Marquis of Edam
288	Merline of Inverleigh ..	A. H. Schier ..	Ayrshire	4,352	4·51	196·45	Major of Gowrie Park
289	Battle Smoke ..	Department of Agriculture	Red Poll	4,727	4·15	196·06	Belligerent (imp.)
290	Lady Doris of Ben Kell	R. Ralston ..	Ayrshire	4,638	4·22	195·63	Marvel of Willow Vale
291	Tragedy 3rd of Linden	H. Luxton ..	Jersey ..	3,631	5·37	195·23	Annetta's Chief of Linden
292	Oatland's Beauty ..	J. Thorburn ..	Ayrshire	4,147	4·71	195·13	Malster of Seafield
293	Carlyle Grace Pietertje..	J. F. Williams ..	Friesian	6,464	3·03	193·97	Aberkerk Marquis of Sunnycroft
294	Merven	Evans Bros. ..	Red Poll	5,025	3·85	193·65	Dinkum Astrologer
295	Ina of Ben Kell ..	C. Lees ..	Ayrshire	4,498	4·30	193·49	Marvel of Willow Vale
296	Canary of Rocklee ..	Mrs. F. M. Akhurst	Jersey ..	3,599	5·36	192·79	Bonnie Lad of Kings Vale
297	Limerick	Mrs. M. E. Carroll	Red Poll	4,858	4·00	192·69	Highflyer
298	Bud of Ayr Brae ..	McFarlane Bros. ..	Ayrshire	4,669	4·11	191·79	Harmonist of Ellerslie
299	Ashlyn 63rd	S. S. Cameron ..	Friesian	5,681	3·36	191·15	Royal King Champion
300	Madge of Langley Park	Callery Bros. ..	Ayrshire	4,490	4·24	190·21	Gallant Lad of View Hill
301	Pansy of Hillcrest ..	F. G. Sadler ..	Shorthorn	4,454	4·26	189·95	Morven Charming Duke 6th
302	Little Maid ..	G. Rowe ..	Jersey ..	4,537	4·18	189·73	War Chief
303	Carlisle Netherland Grace	J. T. Tweddle ..	Friesian	4,683	4·05	189·73	Dominion Sir Agnes
304	Effie of Langley Park ..	Callery Bros. ..	Ayrshire	4,638	4·83	189·37	Playaway of Willow Vale
305	Leila of Hillcrest ..	M. and W. A. Francis	,, ..	4,339	4·36	189·02	Victor of Warrook
306	Holly of Sparrovale ..	Geelong Harbor Trust	,, ..	5,446	3·47	188·95	Romeo of Sparrovale
307	Belle of Wethersdane ..	Cockbill and Gibbs	,, ..	4,775	3·94	188·32	His Majesty of Wethersdane
308	Virtue of Ayr Brae ..	McFarlane Bros. ..	,, .	4,315	4·35	187·73	Kiltie of Oakbank
309	Lady of Ayr Brae ..	McFarlane Bros. ..	,, ..	4,490	4·18	187·62	Harmonist of Ellerslie
310	Buttercup of Jersey Vale	Mrs. L. Orchard ..	Jersey ..	3,767	4·98	187·47	Choice 2nd of Tarnpirr
311	Olive of Riccarton ..	W. T. Cullen ..	Ayrshire	4,493	4·15	186·35	Royal King of Glen Avon
312	Molly of Woodbyrne ..	J. Benallack ..	,, ..	4,684	3·98	186·19	Pride of Warradale
313	Zeta of Sunnyside ..	A. H. Schier ..	,, ..	4,369	4·25	185·68	Bernie of Oakbank
314	Bolobek Dorothea ..	O. J. Syme ..	Friesian	4,870	3·80	184·82	Indulge Johanna Lad
315	Adele of Cororooke House	J. Benallack ..	Ayrshire	4,549	4·05	184·21	Eclipse of Gleneira
316	Iris of Raith ..	C. G. Newton ..	,, ..	4,761	3·65	183·55	Treasure of Raith
317	Daphne of Mt. Hope ..	M. Galbraith ..	,, ..	4,472	4·10	183·32	Stella's Prince of Gowrie Park
318	Cherry 2nd of Willow Park	W. K. Atkinson ..	Shorthorn	4,304	4·25	182·83	Havelock of Darbalara
319	Bernice of La Motte ..	S. A. Johnson ..	Ayrshire	3,594	5·08	182·48	Stewart of Gowrie Park
320	Dora of Netherbrae ..	C. L. Rigby ..	,, ..	5,577	3·27	182·34	Hilda's Earl of Gleneira
321	Burnbank Springfield Inka Fayne	Flack and Sewell ..	Friesian	5,619	3·06	181·83	Springfield Inka
322	Rhea Read 2nd of Clematis	C. J. Reid ..	Jersey ..	3,564	5·08	180·99	Ingot of Banyule
323	Effrontery	Department of Agriculture	Red Poll	4,076	4·67	180·58	Highflyer
324	Doris 2nd of Fairfield Park	C. L. Rigby ..	Ayrshire	5,310	3·40	180·30	Hilda's Earl of Gleneira
325	Dolores 2nd of Banyule	A. H. Schier ..	,, ..	3,892	4·62	179·71	Rational of Oakbank
326	Noorat Mignonette ..	Mrs. A. Black ..	Jersey ..	3,587	5·01	179·68	Milklad of Banyule
327	Snowy 2nd of Mt. View	Cockbill and Gibbs	Ayrshire	4,842	3·71	179·54	Braw Baron of Glengowrie
328	Betsey 6th of Carracoorte	W. Henderson ..	,, ..	4,041	4·42	178·81	Lord Dudley of Gowrie Park
329	Burnbank Mercedes Flower	Flack and Sewell ..	Friesian	4,515	3·95	178·18	Gay Mercedes
330	Oatland's Bright Beauty	J. H. Thorburn ..	Ayrshire	4,228	4·16	175·76	Captain of Medburn Grove

COOL THE CREAM

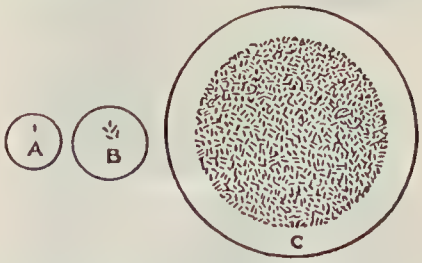
AND MAKE CHOICEST BUTTER.

By R. T. Archer, Senior Dairy Inspector.

Owing to the improved methods of management in butter factories in the State, and the keen competition which has consequently followed, second-grade butter is becoming less and less saleable. The result is that farmers who supply second-grade cream will find their returns growing smaller and smaller, for factory managers will accept inferior cream only at a price much below that given for the choicest first grade.

It therefore becomes imperative for the farmer to supply only the best, and he must leave no stone unturned in order to achieve this result.

Milk when drawn from a healthy udder is always "choicest," and cream obtained therefrom should be of similar quality. If it is not, and is below "choicest" grade, it is due to contamination over which the farmer has control.



A Represents a single microbe ;
B Its progeny after twenty-four hours in cream cooled ;
C Its progeny after twenty-four hours in cream not cooled.

Bacteria, or germs, are freely distributed in nature, and readily gain access to milk carelessly handled and find there a medium adapted to their development. The growth of these organisms is so rapid that at body temperature they double themselves every twenty minutes, so that within 24 hours one germ may develop into millions. The propagation of bacteria in cream, however, can be checked, and the simplest way to do this is to cool the cream as it leaves the separator. The lower the temperature attained at this stage, the smaller is germ development.

Clean and Cool.

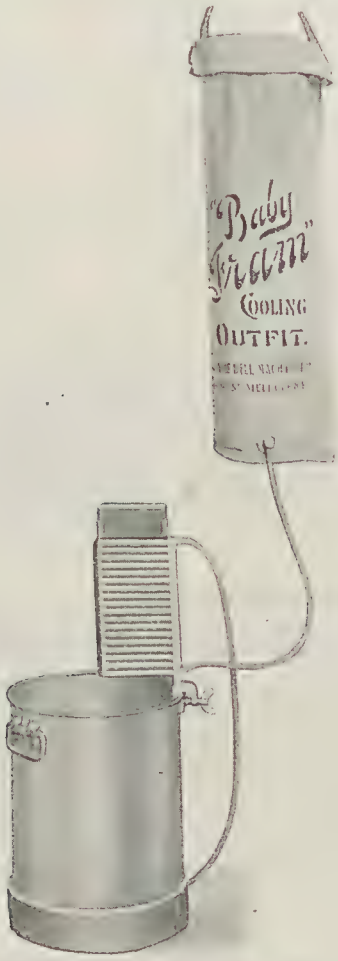
"Clean and Cool" should be the dairyman's motto.

Clean hands should milk clean udders under clean conditions into clean buckets and the milk should be put through a clean separator.

The last-mentioned requirement is probably the most important point for securing cleanliness. A separator retains a large proportion of the dirt, &c., which inevitably gains access to milk; the machine thus acts as a purifier. If this dirt be not thoroughly removed after each operation, the subsequent milk passing through the separator will certainly be seriously contaminated and become at once of second and

even lower grade. Therefore it is essential that the separator should be cleaned immediately after each separation.

The next step is to cool the cream in order to prevent growth of organisms. On the dairy farm, this can best be accomplished as the cream leaves the separator. Herein are illustrations of suitable coolers, obtainable at rates within the reach of every farmer, any one of which



Cooler sold by Messrs. Jas. Bell & Coy., 196-200 King-street, Melbourne.

by lifting the standard of cream to "choicest," would pay for itself within a week of purchase. The cooler is efficient and easy to clean and handle. In places where naturally cool water is unobtainable, it can be provided by using the water-bag attachment provided with the cooler.

In hot districts or where there is not daily delivery, the cream must be kept cool; a cheap and satisfactory means is at hand in the Coolgardie safe.

In the interest of the State as a whole, and particularly in the interest of every dairy farmer, it should be made compulsory under the Dairy Produce Act for all cream to be cooled on the farm, and regulations to that effect are likely to be made in the near future.

Dairy Farmers, Get a Cooler!

Cooler sold by Messrs. Mayne & Holbery, 232 King-street, Melbourne.

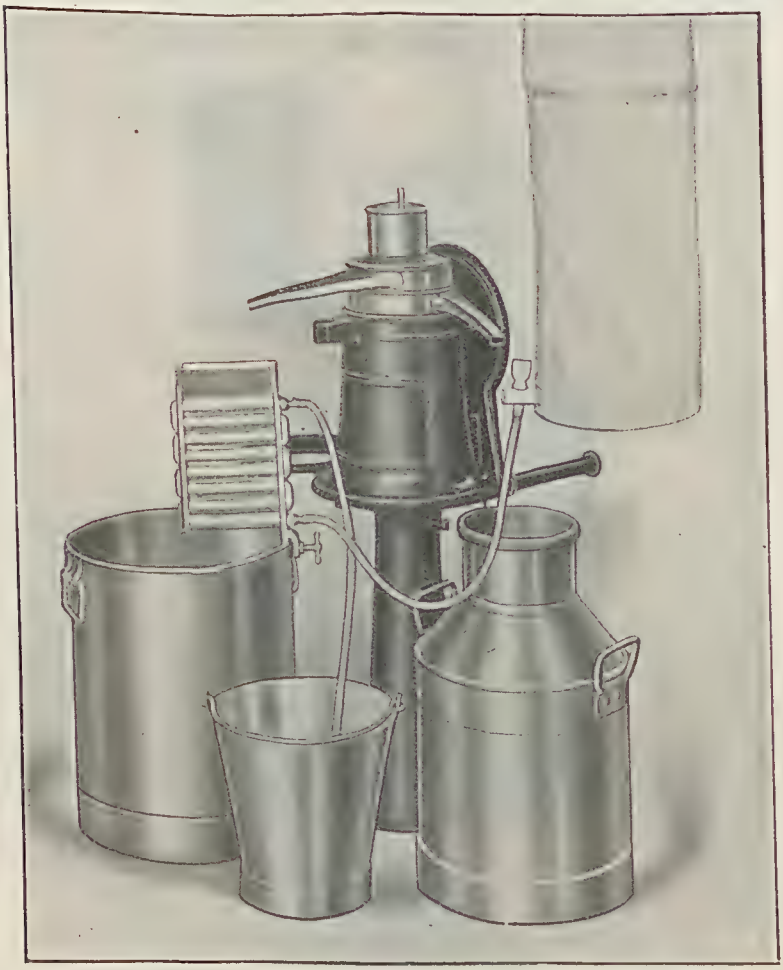
HOW TO MAKE A COOLGARDIE SAFE.

What is known as a Coolgardie safe can be made at a little cost with a few battens, some hessian, and sufficient galvanized iron to make a shallow dish.

The principle of the safe is the same as occurs in the canvas water bag which, as is well known, keeps the contained water at a much lower temperature than the surrounding atmosphere by virtue of the

evaporation taking place. With this safe, water is syphoned from a basin on the top—by means of strands of wool; this flows over the hessian lining, keeping it continually moist and the contents cool and fresh.

Such a safe will prove a boon to the women folk during the summer months as a storage place for meat, butter, milk, and other perishable



Cooler sold by H. Hunt Pty. Ltd., 27 William-street, Melbourne.

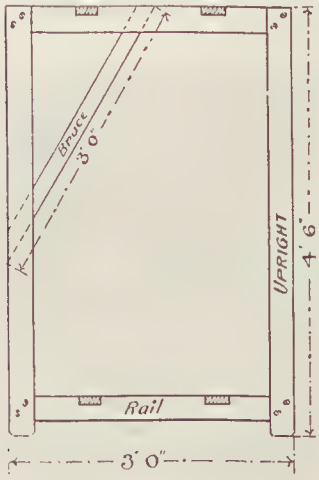
products. As it is not wise to store anything else in the same safe with the cream, it would be advisable to make two—one for cream storage and one for other foodstuffs.

The timber required is 3-in. x 1-in. uprights and rails, and 2-in. x 1-in. braces.

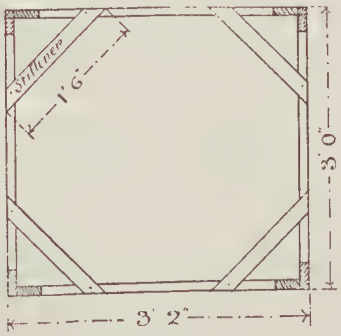
Each side consists of two uprights 4 ft. 6 in. long, two rails 3 feet long, and one brace 3 feet long. The brace for framework of front in

which the door is hung will be only 18 inches long, and will act as a stop to the door.

The uprights and rails are framed together as shown in drawing No. 1; the joints are halved together and screwed with two screws to each joint, and the brace is firmly screwed on the back.



No 1



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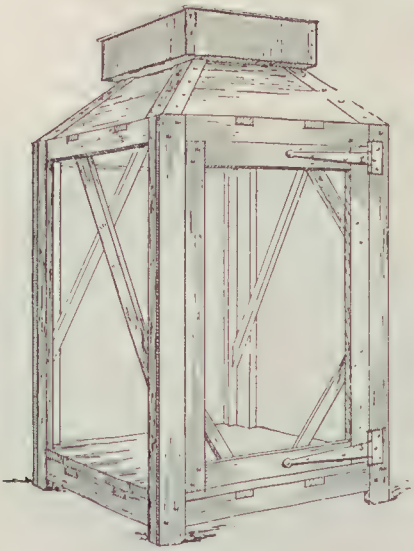


No 3

The four sides having been made are placed together, forming a square 3 feet x 3 ft. 2 in., as shown in drawing No. 2; the sides are nailed together at the corners, and each corner is stiffened at top and bottom by a brace, 1 ft. 6 in. long, let flush into top of rails and nailed thereto with 2-in. nails.

The floor is formed with 6-in. x ¾-in. tongued and grooved boards nailed on top of rails with 2-in. nails.

The top should be made, as shown in drawing No. 3, of 6-in. x ¾-in. wood. The sloping sides are supported on eight triangular pieces 1½ inch thick, well nailed to top of rails and stiffeners. In order to save the labour of carefully mitreing the angles so as to keep the water out of the safe, it will be necessary to cover the joints with a strip of galvanized iron.

The door should be constructed in the same manner as the sides, but with two short braces, as shown in drawing No. 3, to be hung on a pair of 12-in. T hinges and fitted with turn button or other fastener.

In order to catch the drip when the door is opened, a small gutter, made of light galvanized iron, should be hung on galvanized iron staples to inside of top rail of front. It should be so hung that when the door is opened the gutter will swing forward sufficiently to catch any drips; in closing, the door should push the gutter back.

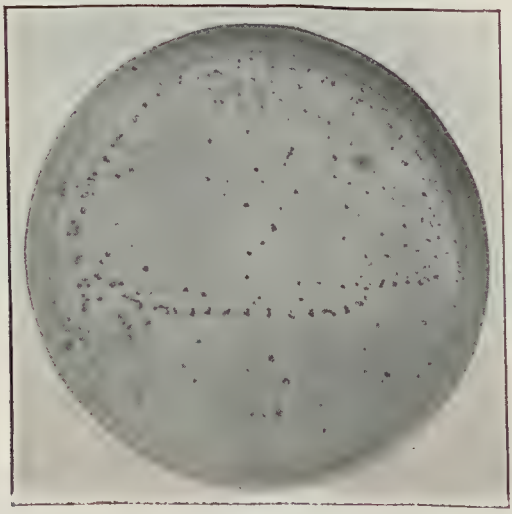
A small gutter made of galvanized iron should be fixed with galvanized iron clouts to outside of bottom rails, with a fall to the corner most convenient for running the water off.

The basin on top may be any watertight vessel, into which strands of wool are placed to syphon the water out on to the hessian.

The drawings, for the sake of clearness, show the framework without any covering. All the framework is to be covered externally with hessian fixed with copper tacks to rails and uprights.

GET RID OF FLIES.

The possible damage that flies can do to food can be understood by considering the organisms left by a single fly in its track. The illustration hereunder shows a plate of gelatine over which a fly has



walked. Each dot is a colony of germs which has grown wherever the feet of the insect have touched. The contamination which results from a fly falling into milk can be imagined.

EGG-LAYING COMPETITION, 1923-24.

Results of Winter Test at Burnley.

By W. C. Rugg, Chief Poultry Expert.

The poultry breeders, who have sent birds to compete at Burnley this year, are to be congratulated on the general improvement in the size of the eggs laids by their birds.

In the winter test of 122 days which terminated on 31st July, every egg laid weighed two ounces or over, consequently not one bird was disqualified for under-weight eggs.

The weather during the test was very much against high egg production. The long dry spell broke towards the end of May into wet, cold, and windy conditions, and some bad storms coming from the east drove the rain right into the back of the pens. The Curator states that the weather during June and July was the worst experienced at Burnley for years. Taking this into consideration, the scores of the leading birds must be considered highly satisfactory. Each of fifteen in the heavy breeds and three white Leghorns each laid 100 eggs or over during the four months.

For size, type, and quality, some of the competitors are equal, if not better, than birds entered at previous competitions; but in all sections there is still room for considerable improvement. There are a number of men experienced in laying competitions who need no advice from me, but I would strongly advise other breeders who contemplate entering at future Burnley competitions of the necessity for careful selection of their breeding stock. Only the progeny of birds of good type and strong constitution should be entered. The eggs used for hatching should weigh two ounces or over, and when the chickens hatch they should be given every chance to grow and develop by having as much liberty as possible, with frequent shifting on to fresh ground. They should be liberally fed from the time of hatching, with the object of expanding their crops to enable them to consume large quantities of food. It will be too late to do it when they are half grown, and it is the heavy feeder that is the fast layer.

Only the plainest of food should be used, as the Department's object is to feed only such foodstuffs at the competition as are easily obtained by any poultry breeder in any part of the State, viz.: Bran, pollard, boiled livers, wheat, oats, maize and chaffed green stuff.

In selecting pullets for the competition, about twenty of the best-developed, as equal in size, type, and age as possible, should be picked. Six weeks or so before the competition they should be placed by themselves. If the owner wants to be in the first flight, every detail must be closely observed from week to week till a final selection can be made. If possible those selected should be of the same strain and from one mating, as in the event of a team reaching a high position in the test, they would then be more valuable for breeding purposes, and a much better advertisement for their owner.

The test for teams at Burnley is the most severe in the State, and it speaks volumes for the ability of the breeders that they can rear birds

capable of laying such large quantities of eggs when exposed to all weathers in open yards and fed on the plainest of foodstuffs. A bird of poor type and constitution will sometimes lay a large number of eggs under the sheltered conditions of a single-pen shed, but it takes a team with really good stamina and constitution to win a twelve months' team test at Burnley.

In looking over the teams it is evident that some breeders have been unfortunate in selecting their birds, as several fair teams have been spoilt by the inclusion of one or more members that should never have been at a competition. These breeders must remember that visitors to Burnley are apt to come to the conclusion that the competing birds represent the quality of the owner's stud birds. Every care should be exercised, therefore, to send only birds that are well up to standard.

In Section A, Class 1, pens 7, 15 and 21 are not good competition birds, and, in one case I know, they are not a true sample of that owner's stud stock. Pens 5, 11, 14 and 16 are good even teams, and of the type desired at the competition.

In Class 2, the birds in pen 25 may lay a lot of eggs, but are too uneven. Pen 27 is probably as good as anything in the competition, and its members, with those of pens 30 and 32, are good samples of the quality desired.

In Class 3, the contestants in pen 38 are very uneven, while those of pen 37 are a good strong team, with plenty of size. Those in pen 45 are a good even, tight-feathered team, and at present look as if they will lay a lot of eggs

In Class 4, pens 60 and 61 are very poor teams. The birds in pen 62 (Langshans) are of very even quality, and are laying well.

PRIZE WINNERS.

Section A.—Groups of Six Birds—Trap-nested.

Name and Address of Competitor.	Pen No.	Bird No.	No. of Eggs.	Breed.
Light Breeds.				
Six Birds—				
1st Prize, Champion Certificate— D. Gibson, 126 Dundas-street, Thornbury	14	..	516	White Leghorns
2nd Prize, Government Certificate— Herbert Bros., Diamond Creek ..	16	..	455	White Leghorns
Individual Birds—				
1st Prize, Champion Certificate— Oreps Poultry Farm (C. O. Dunn), Moorabbin-road, Cheltenham ..	7	1	97	White Leghorn
2nd Prize, Government Certificate— D. Gibson, 126 Dundas-street, Thornbury	14	4	95	White Leghorn

SECTION A.—GROUPS OF SIX BIRDS—TRAP-NESTED—*continued.*

Name and Address of Competitor.	Pen No.	Bird No.	No. of Eggs.	Breed.
Heavy Breeds.				
Six Birds—				
1st Prize, Champion Certificate— J. Wear, Werribee	42	..	528	Black Orpingtons
2nd Prize, Government Certificate— Herbert Bros., Diamond Creek ..	45	..	501	Black Orpingtons
Individual Birds—				
1st Prize, Champion Certificate— J. Wear, Werribee	42	3	102	Black Orpington
2nd Prize, Government Certificate— Herbert Bros., Diamond Creek ..	* 45 45	1 4	101 101	Black Orpington

Section B.—Individual Birds.

Name and Address.	Pen. No.	No. of Eggs.	Breed.
Light Breeds.			
1st Prize, Champion Certificate— H. W. Smith, Ethel-street, Preston	108	105	White Leghorn
2nd Prize, Government Certificate— J. J. West, 3 Christmas-street, Northcote ..	113	102	White Leghorn
Heavy Breeds.			
1st Prize, Champion Certificate— W. Cullen, Closer Settlement, Werribee ..	33	113	Black Orpington
2nd Prize, Government Certificate— T. L. Eastaugh, Point Nepean-road, Moorabbin	76	112	Black Orpington

* Equal for second place.

POULTRY NOTES, RESEARCH FARM, WERRIBEE.

W. O. Pederick, Poultry Foreman.

Breeding operations have been very successful. Fertility has been good throughout the season, and the percentage of chickens satisfactory. Nearly 2,000 have been hatched to date. All weak and ailing chickens are destroyed. The incubators are still full, but hatching operations will not be finished until the beginning of October.

The July chickens will soon be ready to be transferred to the colony houses, and will then be given free range.

Owing to the bountiful rains there is a splendid growth of green-stuff, and the young birds should do exceptionally well.

Great care has to be exercised when shifting chickens from the brooder-house to other quarters, as they are apt to crowd and smother, but by the use of wire-netting floors in the colony houses this danger has been reduced to a minimum. The chickens in the houses will be frequently moved on to fresh ground to induce them to take as much exercise as possible, and they will be liberally fed on plain food. When just on the point of laying they will be transferred to the laying sheds.

Egg production has been good. The Leghorns are laying a little faster than the Orpingtons. A number of settlers have been supplied with eggs for hatching purposes, and from reports to hand satisfactory results have been obtained from them.

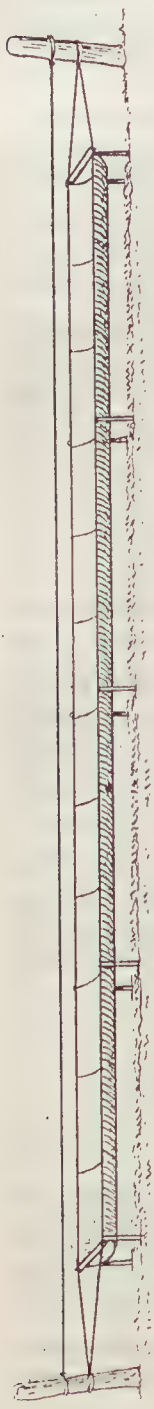
It is necessary to be continually on the watch for vermin at this time of the year, and to take measures to exterminate them by giving the birds access to a good dust bath. Any individual bird badly infested should be dusted with a good vermin powder. The perches should be painted with kerosene.

As the warm weather advances a larger quantity of green-stuff will be added to the morning mash, and the birds kept for egg production only will be given chaffed green stuff after their grain feed at night.

FATTENING SHEEP ON CRUSHED OATS AND CHAFF.

A. J. Gill, Dairy Supervisor.

An interesting experiment of marketing produce on the hoof was lately carried out by Mr. H. L. Webb, "Holly Green," Sunbury. Mr. Webb has held the opinion for some time that it would pay handsomely to fatten sheep on oats and chaff, and, in order to test his theory, about the middle of December last he purchased some weaners in low condition. They were from Lincoln merino ewes by Shropshire rams, and cost 8s. per head.



Trough for Feeding Sheep.

As Mr. Webb wished to obtain four cuttings of lucerne from his paddock, the weaners were turned into hilly country until the middle of April, when, owing to drought conditions, they were still in low condition. They were then grazed in an 18-acre paddock of lucerne, which showed a growth of about 4 inches, but in three weeks' time it was apparently eaten out.

A trough 36 feet in length was placed in the centre of the paddock. It was made from twelve cornsacks sewn end to end, and fencing wire was threaded lengthways along each side of the bag and strained between two posts about 43 feet apart; a piece of 3-inch by 1-inch wood about 16 inches long was used as a spreader between the wires at each end of the bagging; this allowed a drop of from 5 to 6 inches in the centre of the trough. Upright supports were placed about every 9 feet along the wires to prevent sagging and keep the edges of the trough 14 inches from the ground. A wire was strained 6 inches above the centre to prevent the sheep from jumping over. Such a trough gives ample space to feed 60 small sheep or 50 large ones.

The weaners were fed on crushed oats, lucerne, and oaten hay chaff. The quantity allowed per sheep and the composition of the daily feed was as under:—

First week—½ lb. crushed oats, ½ lb. chaff (oaten and lucerne).

Second week—½ lb. crushed oats, 1 lb. chaff (oaten and lucerne).

Third week—¾ lb. crushed oats, 1 lb. chaff (oaten and lucerne).

Fourth week—1 lb. crushed oats, 1 lb. chaff (oaten and lucerne).

Fifth week.—1 lb. crushed oats, 1 lb. chaff (oaten and lucerne).

During the fourth week the amount of chaff was increased to 2 lbs., but as the trough was not being cleared out, the old allowance was immediately reverted to.

Hand-feeding commenced on the 16th April, 1923, and the sheep were sold on the 22nd May following at Newmarket yards for £1 18s. 11d. per head—very close to the top price for the day. The auctioneer's report described them as being of beautiful quality. When the feeding commenced, the weaners were, to use Mr. Webb's term, razor-backs, with a probable dressed weight of about 25 lbs.; when sold the estimated weight was 45 lbs—a gain of 20 lbs., or 4 lbs. a week. Reckoning mutton as worth 10d.

per lb., the value of the increased weight put on by a sheep in five weeks was 16s. 8d. The cost of fattening and amount of food used was—

	s.	d.	
Lucerne and oaten hay chaff—31½ lbs. ..	2	0	per sheep
Crushed oats—26¼ lbs.	2	6	per sheep
Amount allowed for grazing	1	3	per sheep
Total cost	5	9	per sheep

These weaners were unshorn when purchased. They had cut 3s. worth of wool per head. Being shorn late, the skins were not as valuable as they would have been if shorn earlier.

Mr. Webb is of the opinion that he can fatten a full-sized sheep on 1 bushel of oats with the addition of lucerne and oaten hay chaff. Further experiments are being carried out, and the sheep are weighed weekly in the presence of a Departmental official.

PERFORMANCE AND PEDIGREE.

So convinced is the Danish Government of the value of performance as distinct from pedigree, says a recent issue of the *Journal of the Ministry of Agriculture* (London), that in making provision for the award of special prizes for bulls, it was laid down that a bull is not eligible for a Government prize unless records of the performances of his daughters can be produced. The journal quotes the informative statement that before inauguration of milk-recording societies it had already become a general practice to keep bulls for service for a number of years and to judge the bulls by an examination of their offspring.

The practice of neglecting to milk cows for from twelve to twenty-four hours before showing cannot be too strongly condemned. It is foolish because the efficient judge is not deceived by an udder distended in this manner. He must determine the quality of the udder, and this is best done in the case of the cow which has been milked at the regular milking time.

MOSKONFYT.

A NEW GRAPE PRODUCT.

In view of the reduced prices now offering for "Dorodilloes," and some other grapes, a new grape product is worthy of attention.

In the *Journal* of the South African Department of Agriculture of 23rd April last, Mr. S. W. Van Niekerk, Government Viticulturist, contributes an article, the following extracts from which should prove of interest to vinegrowers:—

The name "moskonfyt" is used for a syrup made from pure grape-juice. The writer did not succeed in finding any historical documents

on moskonfyt, but, according to information from old inhabitants, moskonfyt has been known in South Africa practically as long as the grape-vine itself. It is an old custom with wine farmers to make a certain quantity of moskonfyt every year for home consumption, and perhaps some more for a few friends, but seldom with the object of marketing the syrup or konfyt.

The following is a brief summary of the manner in which moskonfyt is made on the farm:—Towards evening the must of grapes, which were pressed the same day, is drawn from the skins into a tub, where it settles more or less during the night. Next morning from six to eight bucketfuls of the fairly clear must are poured into a copper or iron pot, and boiled. As soon as the pot gets heated, the must starts forming scum; all the scum is then carefully removed with a scummer. The must should be continuously stirred with a scummer, or a forked bamboo stick to prevent it from boiling over. After boiling for about three or four hours a syrup is obtained, known as moskonfyt. Farmers have different methods for determining the exact moment when the moskonfyt is ready, *i.e.*, when the required sugar concentration is reached. The most general method is to pour a little of the boiling syrup when it is nearly ready on to a plate, allow it to cool quickly, and then determine if it has been concentrated sufficiently. Needless to say this method is very inaccurate, and often gives disappointing results. It is a well-known fact that when moskonfyt is not sufficiently concentrated, it will start fermenting later on and turn bad, and if over-concentrated the syrup will wholly or partially crystallize. Where moskonfyt is boiled in an open pot, it usually has a particularly pleasant taste, which cannot be obtained when concentrated in a vacuum apparatus. Sometimes the boilers improve the taste artificially, by specially flavouring the moskonfyt by adding naartje parings, fig leaves, or even spices, such as cloves, cinnamon, &c. It should also be mentioned that, in later years, a certain amount of lime is being used to settle the must before boiling. Most farmers were not aware of the fact, however, that at the same time the lime partially neutralizes the acidity of the must. Still, later, potassium meta-bisulphide was used to clarify the must before boiling.

As, until recently, moskonfyt for human consumption was manufactured only on a small scale, the process has never been studied scientifically. During the depression in the wine trade in 1921-22, however, the question of using a part of the surplus must for the production of moskonfyt on a commercial scale repeatedly came up for consideration. Consequently, when the matter was seriously tackled, no satisfactory answer could be given to the following questions:—

(1) To what degree of sugar-content should the must be concentrated to prevent fermentation as well as crystallization?

(2) In what manner can the sugar concentration of boiling moskonfyt be determined?

(3) Is it necessary to subject the must to a special treatment before concentration?

Experiments to investigate these questions are then described.

There appears to be but little margin between the concentration necessary to prevent fermentation and that at which crystallization gives trouble.

Although not one of these samples has so far shown any fermentation, it is, nevertheless, experimentally proved (also at Elsenburg) that 65 per cent. sugar in moskonfyt is not high enough to prevent fermentation, and the Americans had the same experience. Apparently 65 per cent. sugar is about the limit where fermentation is still possible. These experiments have further clearly shown that 70 per cent. sugar is already too high, for all samples having sugar concentration of 70 per cent. and more have totally or partially crystallized. If there is an ideal sugar concentration for moskonfyt which will not result in any fermentation or crystallization whatsoever, this must clearly lie between 65 per cent. and 70 per cent. Such an ideal sugar concentration, however, does not exist. In moskonfyt of 65 per cent. sugar, a certain amount of crystallization, although very slight, occurs. In practically all samples with a sugar concentration lower than 70 per cent. very little crystallization takes place. The conclusion arrived at is that, as far as concentration is concerned, from 68 per cent. to 69 per cent. sugar has given the most satisfactory results.

The determination of sugar percentage was made by means of a specific gravity bottle. The sugar-content corresponds with the specific gravity, and may be read from the specific gravity sugar tables* as found in certain books on chemistry. This method is not absolutely accurate, but is quite satisfactory for all practical purposes.

Another method, as yet only incompletely investigated, is based on boiling point determination by means of a very sensitive thermometer.

Moskonfyt of 66 per cent. sugar-boiling point, about 107° C.
Moskonfyt of 70 per cent. sugar-boiling point, about 108° C.
Moskonfyt of 72 per cent. sugar-boiling point, about 109° C.
Moskonfyt of 75 per cent. sugar-boiling point, about 110° C.

Regarding the treatment of must before concentration, it is necessary to reduce the acidity by the addition of lime, otherwise the moskonfyt will be too sour. It was decided, after judging the various samples, that it is absolutely necessary to reduce the acidity of the must to about 3 to 4.5 per cent. before concentration. In the case of the total acidity of the must being less than 30 per cent. the sweetness of the konfyt is nauseating, and with the total acidity at more than 4.5 per cent. it is too sour. It is further recommended preferably to use ground limestone (calcium carbonate). By using slaked lime (calcium

* In Australia we are more familiar with the Baumé scale than with that of Balling, largely used at the Cape and in California, and which is based on sugar percentage. The correspondence of the two is as follows:—

Balling. %	Baumé. %
65	35·57
66	36·09
67	36·6
68	37·1
69	37·62
70	38·12

hydrate) the must easily becomes too highly neutralized, with the result that it gets a bitter taste and assumes a dark dirty colour. With ground limestone this never happens. The ground limestone used was 75 per cent. pure; the slaked lime about 90 per cent. pure.

Finally, it may be mentioned that some farmers are in the habit of letting the must ferment slightly before boiling. Presumably this prevents the moskonfyt from crystallizing so easily. As by such fermentation certain agents may form in the must, which later on prevent or reduce the crystallization of moskonfyt, some experiments were carried out. In one case (where 5 per cent. sugar was fermented out) two samples were boiled, yielding 70 per cent. and 74 per cent. sugar. In another case (where 1.5 per cent. sugar was fermented out) three samples moskonfyt were boiled, yielding 70 per cent., 71 per cent., and 72 per cent. sugar. In all of the five samples there was a minimum of crystallization compared with samples of similar sugar concentration in previous experiments. Probably the fermentation really had a good effect. The matter will, however, be more thoroughly investigated during the current year.

ANSWERS TO CORRESPONDENTS.

Viticulture.

Replies by Government Viticulturist.

A correspondent from Griffith, New South Wales, asks:—

1. For advice as to whether resistant vine stocks should be planted, in view of the opinion expressed by Dr. Elwood Mead, that in America vignerons are not troubling about resistant stocks, as long as they are in a clean district.

Answer.—It is understood that such is often the case. In Californian viticultural periodicals, the fact is deplored, and the folly of thus ignoring the danger is often emphatically pointed out. It would be foolish to imitate America's bad example.

2. Is it true that vines grafted on resistant stocks yield less than vines on their own roots?

Answer.—It is not true that vines grafted on resistant stocks yield less than vines on their own roots. Provided the stock suits the scion and the soil, the yield is at least equal—indeed often superior.

3. Under irrigation, what are the best stocks for sultanas and currants?

Answer.—Under irrigation A.R.G. 1 is an excellent stock for both sultana and Zante currant. So far as present experience goes, we do not know of anything better.

4. In the event of Phylloxera entering a vineyard, making it necessary to work it over on resistant stocks, would the soil need a rest or could it be done at once?

Answer.—A vineyard dying from Phylloxera may be immediately replanted with resistant vines. They have nothing to fear from Phylloxera. Many

Rutherglen vineyards were thus immediately replanted and they have given excellent results. It is, nevertheless, well to plant vines on fresh land, just as one would do in the case of wheat or any other crop. A change is always desirable, but not on account of Phylloxera in the soil.

5. Would I get a stronger or better vine if I obtained No. 1 grade wood such as that used for bench grafting?

Answer.—Graftable cuttings will not give you a stronger vine than the smaller ones—an equally vigorous vine will result from either. The vine struck from the smaller cutting will, in fact, have less pith in its centre—a trifling advantage except, perhaps, in the case of Yema grafts executed on rather slender stocks.

6. Is there anything against planting such wood in nursery rows, budding it the following season and planting out as dormant buds?

Answer.—I should much rather plant out rootlings, where they are to remain, and "field-graft" them. Budding or grafting in the nursery means a delay of at least a season before the vines bear fruit. Cuttings may be first struck in the nursery, though this is not necessary—cuttings may be planted direct.

7. What is the best time to graft two-year-old vines—before or after shooting?

Answer.—It is better to graft when one year old (from plantation) than to await the second season before doing so. Early grafting is to be recommended if the spring is a favorable one; in a wet spring, graft late.

A correspondent asks if there are any seeds in sultana grapes, and if so, how they are removed?

The Government Viticulturist replies that the sultana (or more correctly, the sultanina) is one of the seedless variety of grapes, of which there are several, mainly natives of Asia Minor. The flowers of these grapes are fertilized in the usual way, but the embryo seeds fail to develop and cannot after a while be distinguished from the pulp of the berry, so that when ripe these grapes have no seeds. Occasionally one finds, in a bunch of seedless grapes, an odd large berry in which the seeds have developed—these are not uncommon in the Zante currant. They are in fact a source of annoyance as they take much longer to dry than the smaller seedless berries. In the sultana they are very seldom met with.

THE DESTRUCTION OF SNAILS.

It was found that *Helix pisana* fed readily on a mash made of calcium arsenate 1 part, by weight, and 16 parts of bran. In giving this poison bait a thorough trial a kill of 96 per cent. of all active snails was secured by one application in a garden plot 16 by 20 feet, which had over 6,000 snails. In a practical application about a heavily infested property the results were fully as satisfactory as in the experimental work. Being simple, inexpensive, and easily applied, it is now felt that an additional weapon with which to fight the snail has been secured.—From monthly *Bulletin,* Department of Agriculture, California, January-February, 1923, pp. 9-10.

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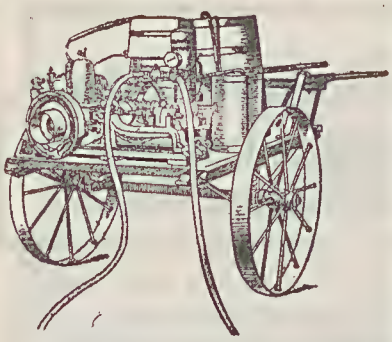

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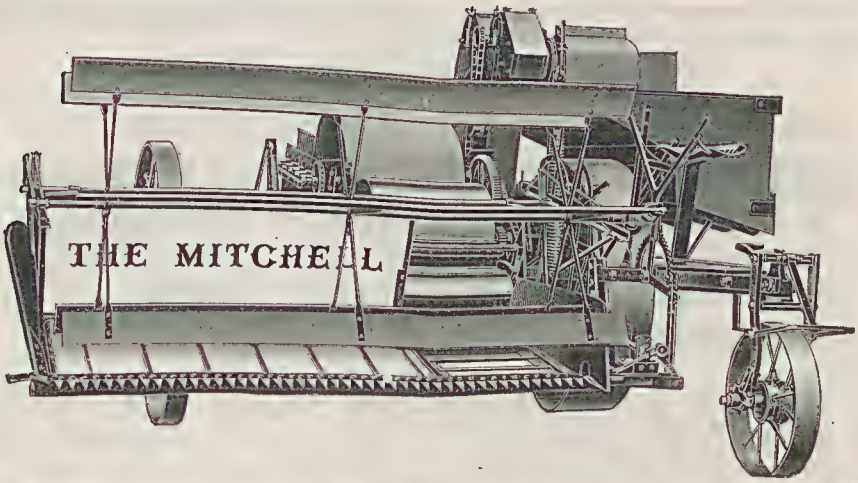

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PURE FRIESIAN HERD

Bull Calves for Sale

(1) Bull Calf dropped 24th January, 1923

Sire: Victoria Songboy (359) by Dominion Domino Dutch Boy (1206 N.Z.F.H.B.)
Dam: Dominion Belle Corona (369) by Oak de Kol 2nd Homestead Fobes (imp.) (341 N.Z.F.H.B.)

Dam's Record for 273 days under Government Herd Test—
11,646 lbs. Milk, 3·61 Test, 420 lbs. Butter Fat.

For Full Lactation Period—
11,715 lbs. Milk, 3·61 Test, 424 lbs. Butter Fat.

(2) Bull Calf dropped 26th February, 1923

Sire: Victoria Songboy (359) by Dominion Domino Dutch Boy (1206 N.Z.F.H.B.)
Dam: Dominion Proud Lassie (368) by Woodcrest Jo (imp.) (334 N.Z.F.H.B.)

Dam's Record for 273 days under Government Herd Test—
11,336 lbs. Milk, 3·42 Test, 387 lbs. Butter Fat.

For Full Lactation Period—
12,216 lbs. Milk, 3·51 Test, 428 lbs. Butter Fat.

Victoria Songboy's dam Dominion Madrigal's Record for 273 days under Government Herd Test is 11,373 lbs. Milk, 3·93 Test, 448 lbs. Butter Fat; and for Full Lactation Period 13,485 lbs. Milk, 4·17 Test, 563 lbs. Butter Fat.

(3) Bull Calf dropped 3rd May, 1923

Sire: Victoria Jo Patch (345) by Longbeach Big Patch (515 N.Z.F.H.B.)
Dam: Dominion Coringa (380) by Woodcrest Jo (imp.) (334 N.Z.F.H.B.)

Dam's Record for 273 days under Government Herd Test—
13,923 lbs. Milk, 3·58 Test, 499 lbs. Butter Fat.

For Full Lactation Period—
16,373 lbs. Milk, 3·62 Test, 593 lbs. Butter Fat.

(4) Bull Calf dropped 18th May, 1923

Sire: Victoria Jo Patch (345) by Longbeach Big Patch (515 N.Z.F.H.B.)
Dam: Victoria Dutchmaid (991) by Dominion Domino Dutch Boy (1206 N.Z.F.H.B.)

Dam's Record for 273 days under Government Herd Test—
6,054 lbs. Milk, 4·01 Test, 243 lbs. Butter Fat.

For Full Lactation Period—
7,156 lbs. Milk, 4·06 Test, 290 lbs. Butter Fat.

Victoria Jo Patch's dam is also Dominion Madrigal (record as above).

INSPECTION of these Bull Calves at the Horticultural Gardens, Burnley, is invited.

APPLICATION FOR PURCHASE to Dr. S. S. Cameron, Director of Agriculture, Melbourne.

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Sire's D. Dam's	,,	9510 ,,	...	12 ,,	,,	8033 ,,
G. Sire's D. Dam's	,,	10215 ,,	...	7 ,,	,,	9386 ,,
G.G. Sire's D. Dam's	,,	12565 ,,	...	10 ,,	,,	8853 ,,
G.G.G. Sire's D. Dam's	,,	10088 ,,	...	2 ,,	,,	9754 ,,

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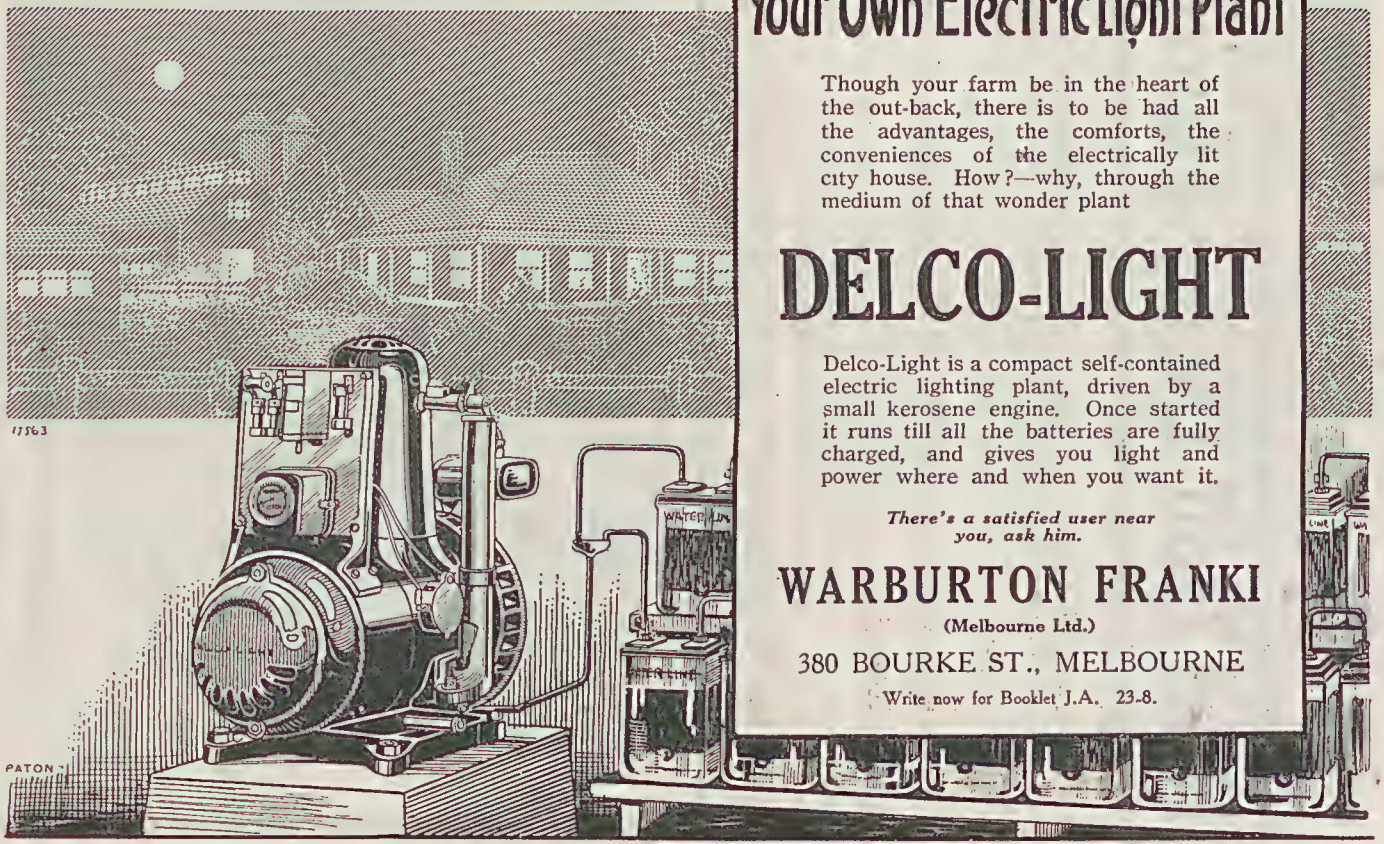

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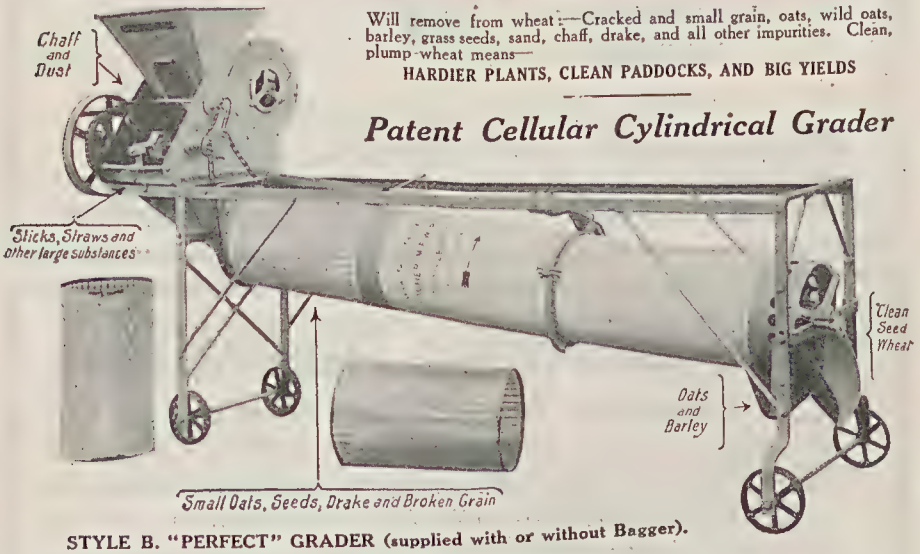
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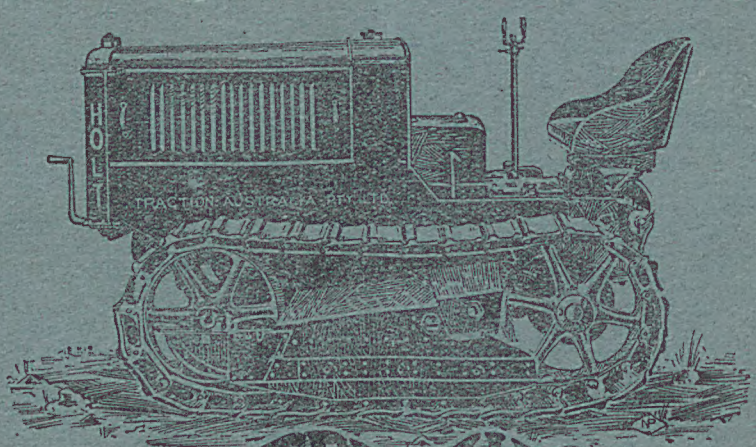

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